





SPANISH
WEST-
INDIES









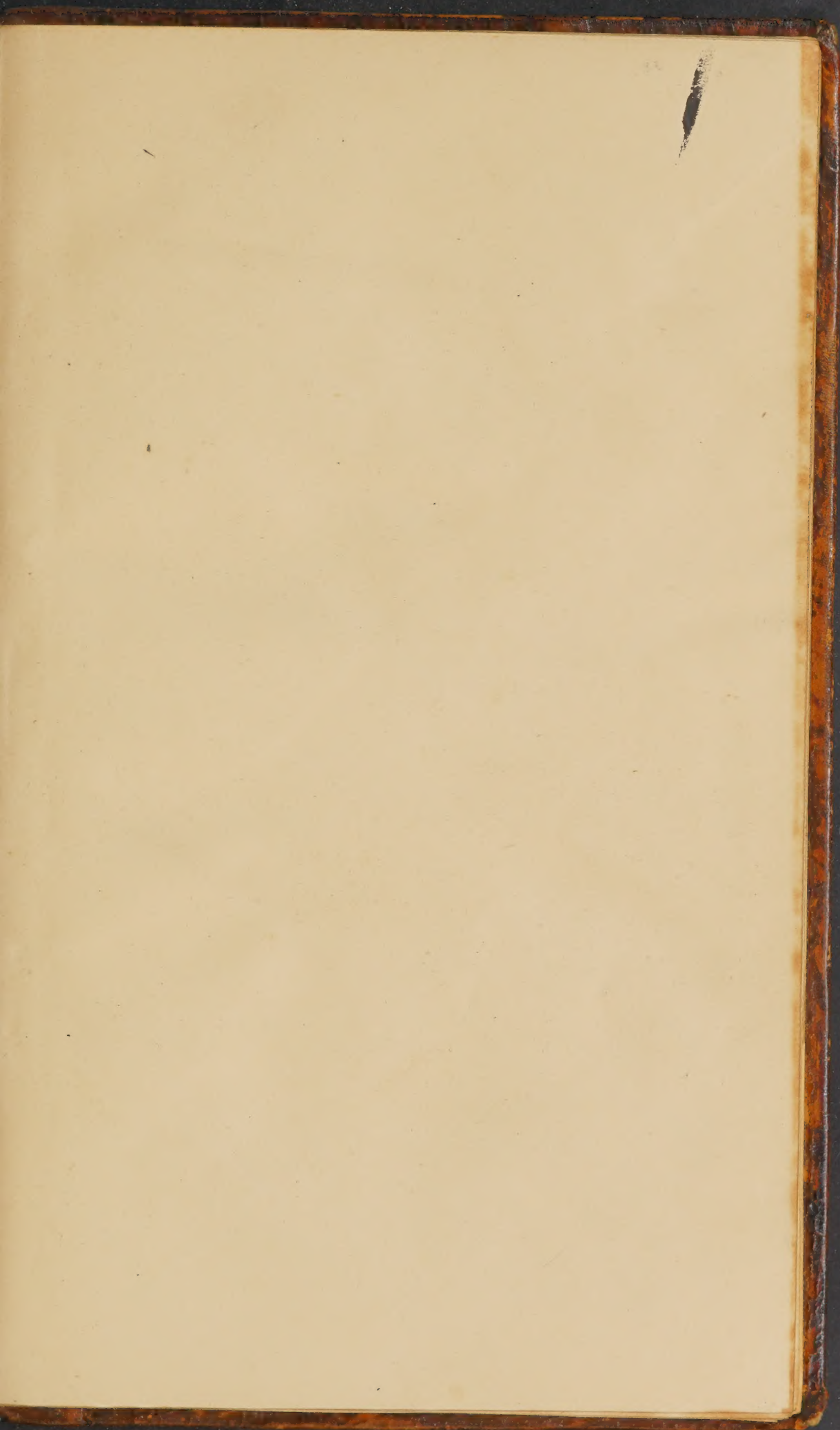
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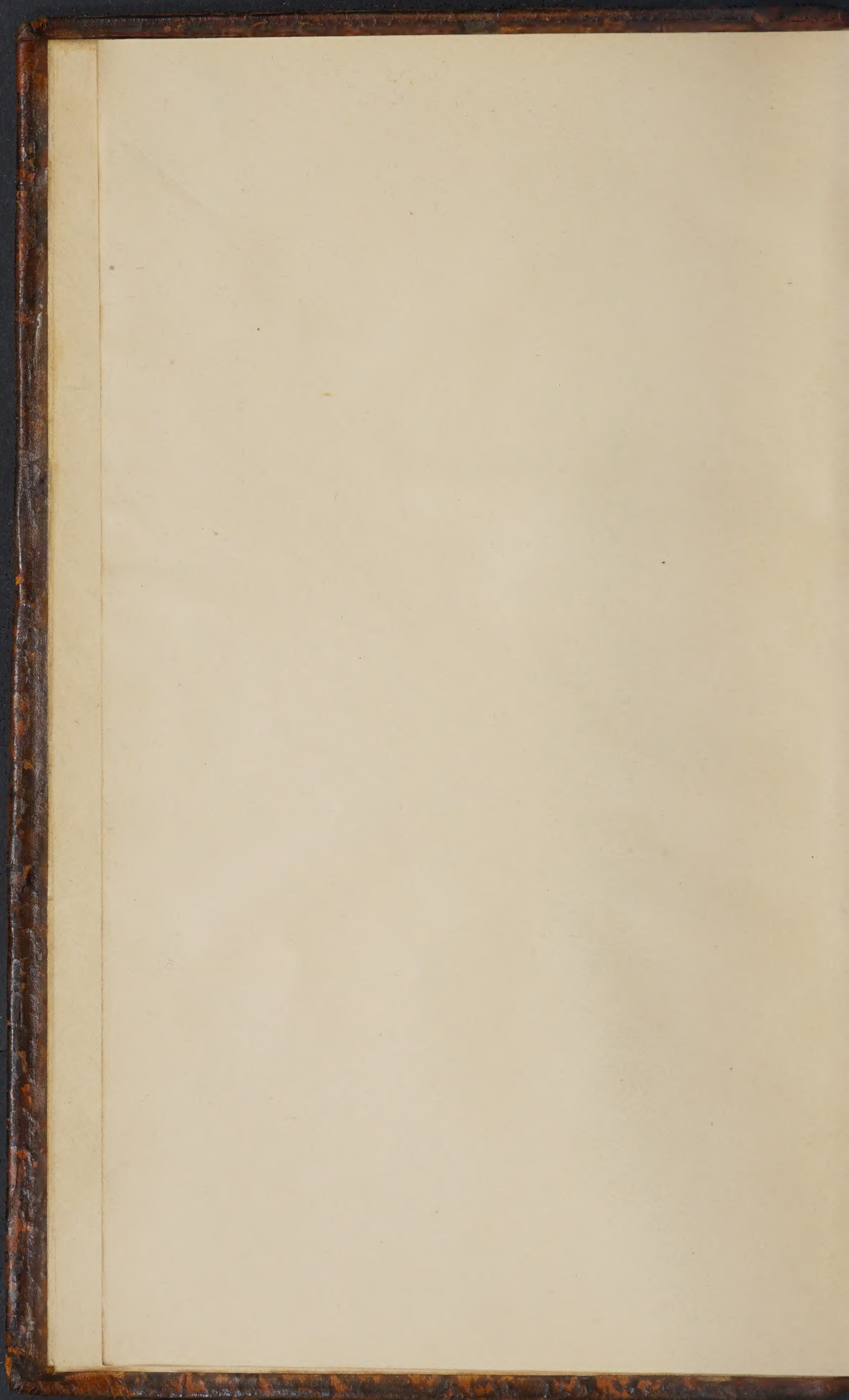
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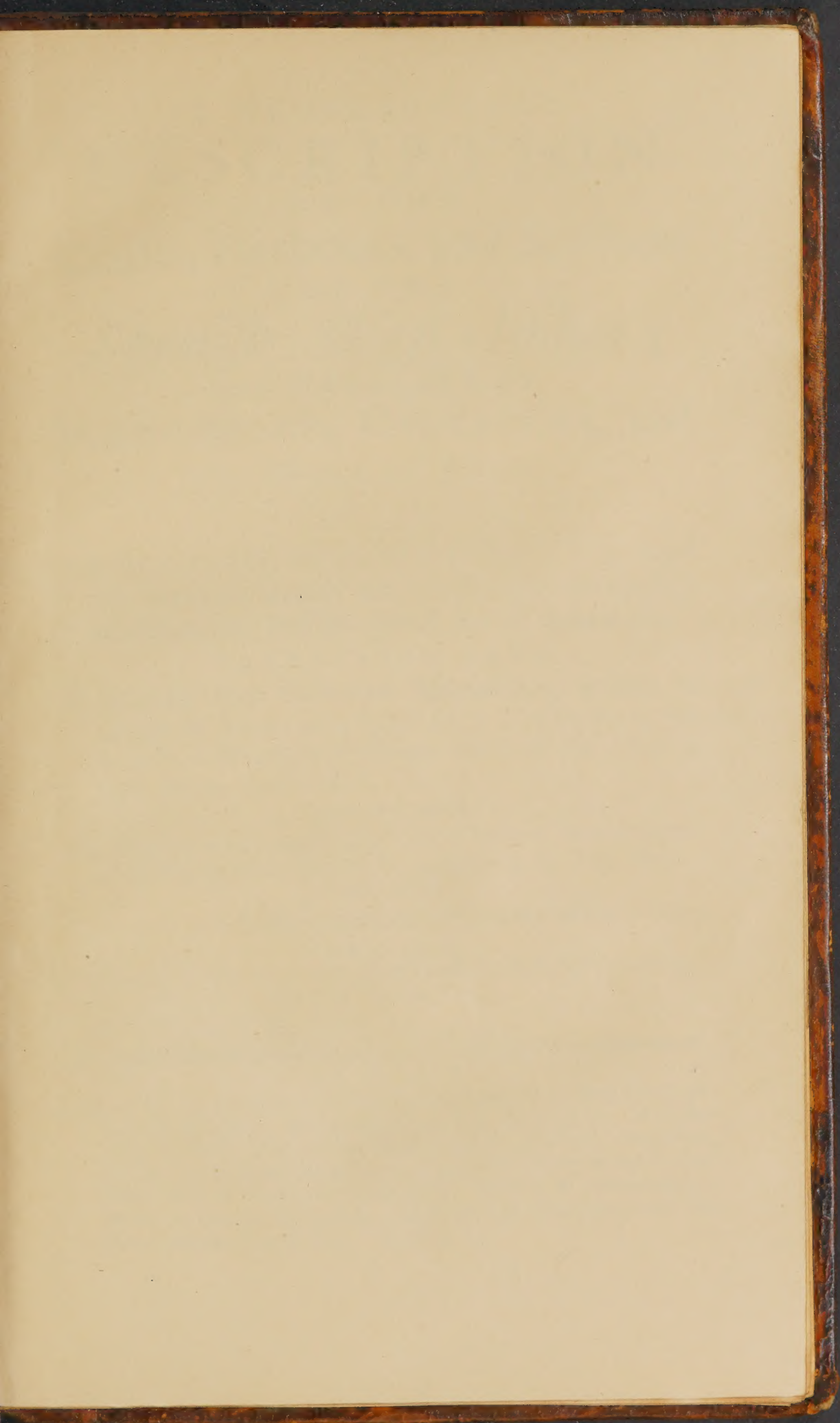
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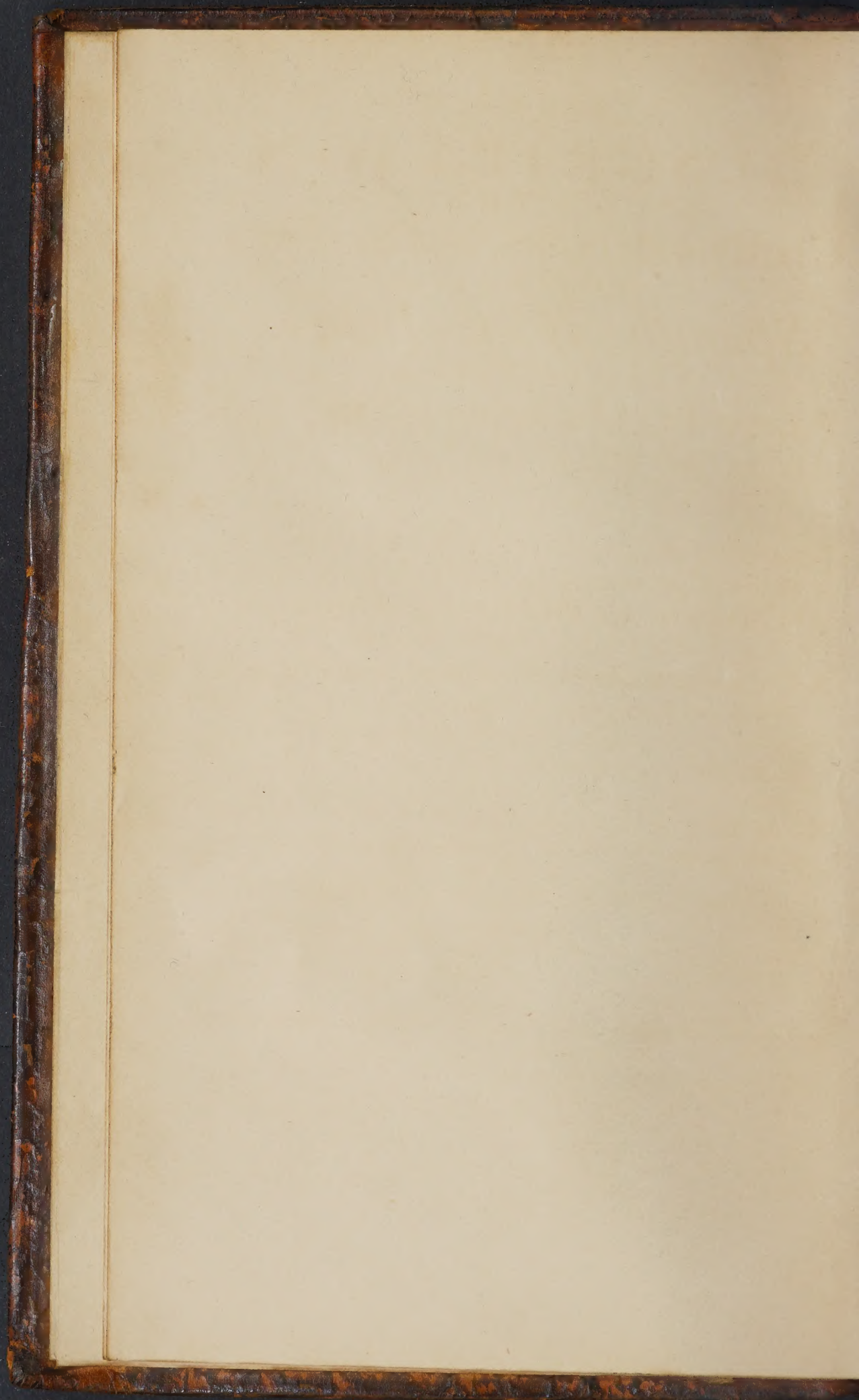
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A GEOGRAPHICAL
DESCRIPTION
OF THE
Coasts, Harbours, *and* Sea Ports
OF THE
Spanish West-Indies ;
PARTICULARLY OF
PORTO BELLO, CARTAGENA, and
the Island of CUBA.

WITH
OBSERVATIONS of the CURRENTS, and
the VARIATIONS of the COMPASS in the *Bay*
of MEXICO, and the *North Sea* of AMERICA.

TRANSLATED FROM
A Curious and Authentic Manuscript, written in
Spanish by DOMINGO GONZALES CARRANZA, his
Catholick Majesty's Principal Pilot of the *Flota* in
New Spain, Anno 1718.

To which is added,
AN APPENDIX, containing Capt. *Parker's* own Account
of his Taking the Town of *Porto Bello*, in the Year 1601.

WITH
AN INDEX, and a New and Correct CHART of the Whole ;
AS ALSO
Plans of the HAVANNAH, PORTO-BELLO, CARTAGENA,
and LA VERA CRUZ.

——— *Fas est & ab Hoste doceri.*

L O N D O N :

Printed for the Editor CALEB SMITH (Inventor of the New *Sea-Quadrant*) at his Office, for Insuring Ships and Merchandize, in *Castle-Alley*, *Cornhill* : And sold by Mess. *Strahan*, *Meadows*, *Brotherton*, *Clarke*, and *Willock*, Booksellers, in *Cornhill* ; *Payne* in *Pope's-Head Alley* ; *Innys* in *St. Paul's Church-yard* ; *Robinson* in *Ludgate-street* ; *Manby* on *Ludgate-Hill* ; *Senex* and *Whiston* in *Fleet-street* ; and Mr. *Nourse* without *Temple-Bar*. M.DCC.XL.

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TO THE
MERCHANTS *of* Great Britain;
THE
COMMANDERS *of* SHIPS;
And OTHERS;
*Who were pleased to subscribe
for this Treatise.*

GENTLEMEN,

THE ready and generous *Encouragement* you gave to the *Proposal* for publishing this Work, is an *Instance* of your laudable *Zeal* and *Inclination* to promote every Thing, which has a *Tendency* to improve the *Navigation* and *Commerce* of these Kingdoms: I therefore beg Leave to *offer* it to your *Patronage*;

DEDICATION.

ironage; and to acknowledge, at the same Time, the *Obligations* I am under for the kind *Reception* it met with at your Hands.

Had some Persons in *high Stations* been influenced by a like *Public Spirit*, this Treatise might have seen the Light time enough to have been of considerable *Use* and *Benefit* to those brave *Commanders* of his Majesty's Ships, who are now in *America*; and probably, that *Damage* which Admiral *Vernon's* Ship, the *Burford*, lately sustained, by running upon a Rock off Point *Canoa*, † might have been prevented, had they read the particular *Cautions*, given in the 66th and 67th Pages hereof, for avoiding it: However, the *Publication* at this *Juncture*, we hope, is not *unseasonable*,

† Vide *London Gazette* of Saturday May 24. to Tuesday, May 27.

DEDICATION.

v

able, since his *Majesty* has been pleased to *declare*, that He “ is now making
“ Preparations for carrying the War
“ on in the most proper Places, and
“ in the most vigorous and effectual
“ manner;” from which *Intimation*, it is hoped, the *Spanish West Indies*, will be the Scene of *Action*; and then I make no Question, but the *Observations* and *Directions* contained in this *Book*, will be found extremely *serviceable* to *Those* who may be ordered *thither*, upon any *Enterprize* or *Expedition* whatsoever.

To you, GENTLEMEN, the chief *Promoters* of our *Trade* and *Navigation*, this *Kingdom* is indebted for it's *Increase* of Wealth, Power, Strength and Honour: To your noble and ever memorable *Defeat* of that worst of Projects, the Grand *Excise-Scheme*, we owe the *Freedom* of our *Commerce*,

DEDICATION.

and the *Preservation* of our *Liberties*;
and whatsoever *Glory* the *British*
Arms may acquire; whatever *Ad-*
vantages the Nation may obtain by a
future *Peace*; the *Cause* of All must
be *attributed*, in a great Measure, to
your just, frequent and loud *Remon-*
strances against the *repeated* *Insults*
and *Injuries* of *Spain*: Wherefore, as
your *Prosperity* and the *Interest* of
your Country are *inseparable*; I shall
include them *Both* in one *Wish* for
your *Happiness* and *Welfare*; and
am, with the utmost *Respect*,

GENTLEMEN,

Your most obliged

And most obedient

Humble Servant,

CALEB SMITH.



T H E
P R E F A C E.

THE Translator of the following Sheets, thought it not proper to confine himself to a literal Version; but has endeavoured to express the Sense and Meaning of the Author, as truly and intelligibly as he could; to which End, he has frequently taken the Liberty to vary from the Expression, though not from the Purport of the Original; and some few trite Observations of no Use have been entirely omitted.

It may not be amiss to mention, that the Gentleman who brought the Original into England, was a Prisoner for some Time at the Havannah, where he procured it in Manuscript, and presented it to the Editor, as a Testimony of his Friendship and Respect.

This Treatise was perused by very good and able Judges, who thought it contained many useful Informations and Instructions, for such

as sail in the Seas of North America, and the Bay of Mexico; wherefore, 'tis hoped, the Publication hereof will prove acceptable to all Sea-faring Gentlemen, for whose Use and Advantage it is principally designed; and though it may seem less entertaining to many others; yet the Curious, and such as delight in Geography, may find Matter of Instruction; and I am perswaded, the main End and Design of it, which is, the Advancement of Navigation, will be accepted and approved by All, who regard the Publick Good; more especially, as it tends to improve that valuable Branch of it, for the Freedom whereof it was thought needful to enter into a War with Spain; in order to secure and confirm our Right of navigating in those Seas that are here described, without Interruption, Search or Visitation.

That the present War may be crowned with Success; and quickly end with a firm Establishment of This Right, and every Other, which the British Nation has too long suffered to be infringed; is, I hope, the Prayer of every true Englishman, as well as of the

EDITOR.

Castle-Alley, Cornhill,
May the 29th, 1740.

ADVERTISEMENT.

THIS Treatise appears to have been left unfinished by the Author, and 'tis much to be wished He had compleated it according to his Plan: However, we hope, that some of those ingenious Mariners, with which our Navy now abounds, will have an Opportunity of furnishing Us with such proper Observations, from their Journals, as may be sufficient to perfect the Work.

AS the Editor has been desired, by some Gentlemen, to publish this Treatise in the French Language; He proposes to put a Translation thereof to the Press, so soon as he has received 300 Subscriptions; at the Rate of three Shillings for each Book.

Quelques Messieurs François ayant souhaité d'avoir une Traduction de ce Livre en leur Langue: Je me suis déterminé à la faire faire, & à le mettre au jour, aussitôt que j'aurai obtenu 300 Suscriptions, à trois Che-lins chaque Livre.



T H E
C O N T E N T S.

CH A P. I. *Containing a Description of Part of the Bay of Mexico, with its Shoals, and the Coasts of New Spain, New Andaluzia, and New Biscay.* Pag. 13.

C H A P. II. *Containing a Description of the rest of the Mexican Bay, and its Shoals, with the Coast of Yucatan, New Biscay, and Grand Florida.* p. 35.

C H A P. III. *Containing the Description of the Coast of Yucatan, Guatemala, Honduras, Nicaragua and Costa Rica.* p. 52.

C H A P. IV. *The fourth Description contains the Windward Passage, with its Shoals; the Islands of Jamaica, and Part of that of Cuba, the Coasts of Cartagena, Terra Firma, Costa Rica, and Nicaragua.* p. 64.

C H A P.

The CONTENTS.

xi

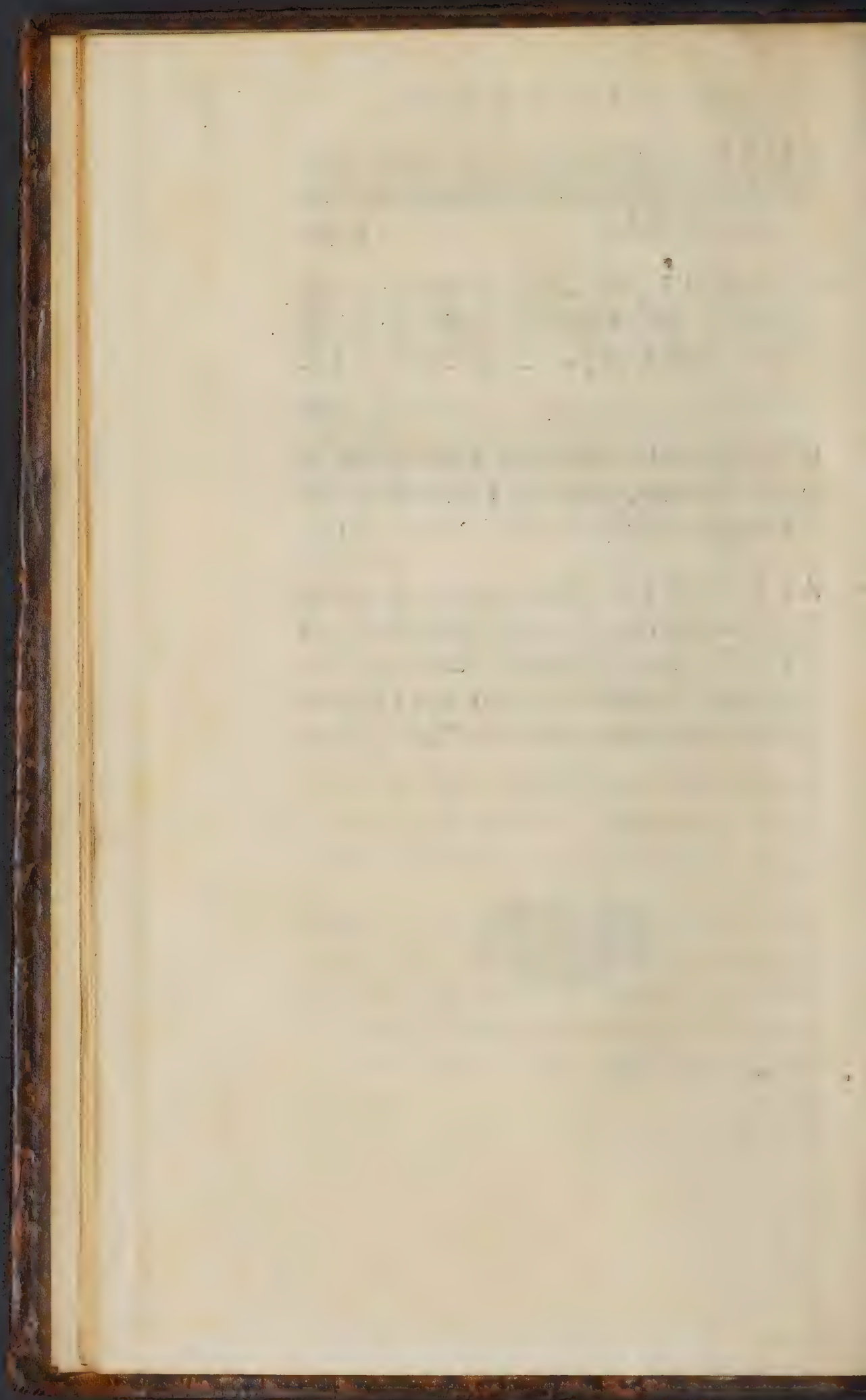
CHAP. V. *Contains a Description of the Coast of Florida, the Channels, and the Island of Cuba.* p. 99.

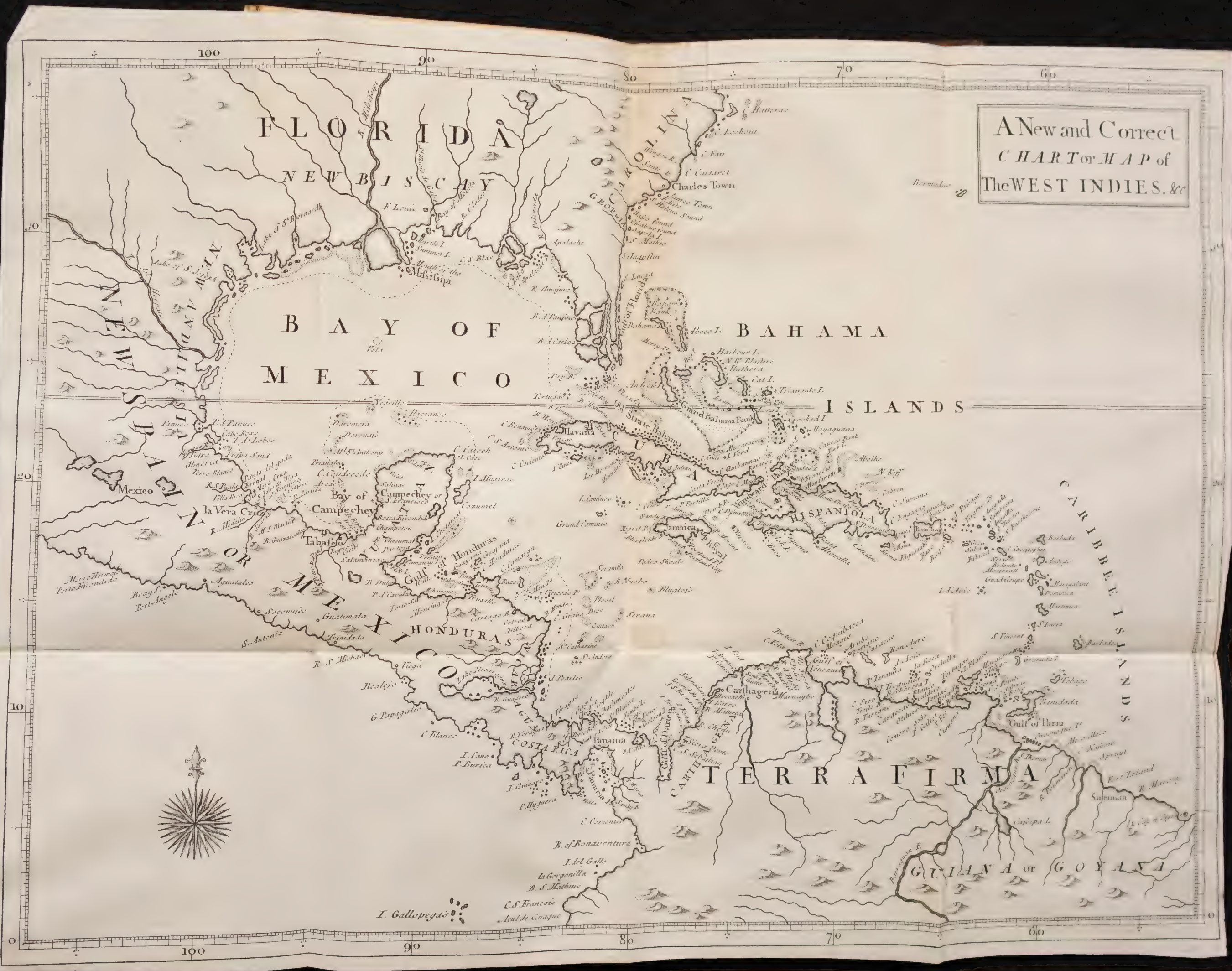
CHAP. VI. *The Signs or Marks of the Coast of the Havannah, from the Shoals of St. Isabel, as far as the Point of Hicacos.* p. 105.

CHAP. VII. *Containing Observations of the Currents, and the Variation of the Compass.* p. 114.

APPENDIX. *Containing an Account of the taking the Town of Porto Bello, in the Year 1601, by Capt. Parker of Plymouth: Printed from his own Original MSS. with References to the Plan.* p. 130.







A New and Correct
CHART or MAP of
The WEST INDIES. &c



CHAPTER I

Containing a Description of Part of
the City of London, and the
River of Thames, from the
Tower to the City.

THE City of London, from the
Tower to the City, is a
very large and populous
City, and is the seat of
the British Empire. It is
situated on the River of
Thames, and is the most
important City in the
Kingdom. It is the seat of
the British Empire, and is
the most important City in
the Kingdom. It is the seat
of the British Empire, and
is the most important City
in the Kingdom.



CHAP. I.

*Containing a Description of Part of
the Bay of Mexico, with its Shoals,
and the Coasts of New Spain, New
Andaluzia, and New Biscay.*



THE *Courses* from one Port to another, when discover'd by Experience, are the *Light* of Navigation; for they teach and direct the Rout or Way, that is to be taken to make a Voyage with Success: On which Consideration, in order to illustrate the Chart, or Map, we think proper to describe, in Writing, the Courses to and from the principal Ports at all Seasons, as well as the several Signs and Marks of the Shoals and Coasts; for the better Security and Direction of Seamen.

The

A DESCRIPTION of the

The principal Port of *New Spain*, in this first Description, is, *La Vera Cruz*, and the Castle of *St. Juan de Ulva*, the Key of Traffick of the said Kingdom; wherefore I shall begin from thence to describe the Courses, found out by the Experience of the most skilful and able Men, that have been known to navigate in this Bay, as well as on all the Coasts of *America*; from whom I have received all the Instruction, I am Master of on the present Subject.

*Of the Winds
and Weather.*

The Seasons, Winds and Weather, in the Bay of *Mexico*, are as follow: The *Trade Winds* reign and blow generally from *March* to *September*, from the N. E. to the S. E. and the Weather is pleasant and serene. The *Norths*, or *North Winds* blow from *September* to *March*, and the Weather is stormy, but most tempestuous in the Months of *November*, *December* and *January*, when we have violent Storms and hard Gales of Wind, for fifteen and twenty Days successively; yet sometimes, if it be calm, the *Trade Winds* return, and the Weather grows serene; otherwise, if there were no such Intermissions, it would be impossible to navigate in this Bay, in the Time of the *North Winds*; for even the Currents alter in the same Manner.

On

On this Coast, and within all the *Wind-Of the Tides.* *ward Islands*, the *Tides* are irregular: The Ebbs and Floods are very perceptible at the Full and Change of the Moon; and sometimes in the Quarters also, but never so much as in the Conjunction and Opposition.

In the Rivers likewise the *Tides* ebb and flow every Day, yet irregularly; and when the North Wind blows, the Sea runs towards the Coast; which causes the Water to rise higher near the Shore.

Having premised thus much: Let us suppose that we came from *Old Spain*, or the *Havannab*; and are now sailing from the Soundings of the Shoals of *Campechy*, as far as *La Vera Cruz*; passing thro' the Soundings of the *Alacran*, and coming out between the *Triangulas* and the new Shoals of *Manoel Antonio*; or else between the said Shoals and the Islands of *Arenas*: First, then, if you are bound for *La Vera Cruz*, from *Old Spain*, or the *Havannab*, in the Time of the North Winds; having pass'd the *Trianguls*, and the new Shoals, and the Islands of *Arenas*; as soon as you come out of Soundings, you must steer your Course W.S.W. in order to make *Punta delgada*, or the Mountains of *Villa Rica*; the said *Punta* lying in the Latitude

The Course from the Beginning of the Sounding of Campechy as far as La Vera Cruz in Winter.

itude of twenty Degrees; and the Mountains in nineteen Degrees forty Minutes; when you are in this Latitude, about two Leagues from Land, you'll be in the Soundings of thirty-five or forty Fathoms; and at a League from this Land there are twenty-five Fathoms. From the said *Punta* the Coast runs towards the South, as far as *Sampuala*, and you must sail along the said Coast, 'till you come into twenty Fathom Water, where the Bottom is loose and chalky Ground; but if you meet with Sand and Stones, you are upon *Chasalaca* or *Sampuala*, which lie ten Leagues to the Leeward of *Punta delgada*; and from these Soundings, you must steer your Course towards the S. S. E. 'till you come into sixteen Fathoms; after which you must come no nearer the Land, for then you are in the Channel; and being off *Old Vera Cruz*, the River there commonly runs very strong, and in calm Weather throws the Ship out, upon which Account, you must endeavour to keep still in sixteen Fathoms, and continue your Course along the Coast, towards the S. S. E. in the same Channel, having the Castle of *St. Juan de Ulva* right a-head, 'till you arrive off *Punta Gorda*, where you'll meet with a muddish Bottom, and the Soundings will diminish to five Fathoms,

thom, in the Channel that lies between the *Gallega* and the *Restinga*, or Point of the *Caleta*, or Cove of *La Vera Cruz*; and at entering the Channel, if you meet with Stones in your Soundings, you incline to the *Gallega*; but if you meet with Gravel, you incline to the *Caleta*; for the Bottom of the Channel itself which lies N.W. and S.E. is Mud, and you must anchor near the Castle.

If you make your Voyage in the Time of ^{In Summer} the *Trade Winds*, and come through the said Shoals, you must steer your Course S.W. 'till you come into the Latitude of nineteen Degrees and ten Minutes North, in which lies the Port of *La Vera Cruz*; and from thence endeavour to find it by steering West. Within Sight of it, you'll raise the *Gallega*, which lies a League to the North of the Castle, 'till you see the *Torre de la Merced*, or *Tower of Mercy*, in one with the said Castle, (which is the highest Tower in the City:) If you are a League and a half or two Leagues off at Sea, after seeing the *Gallega*, you must steer S.E. keeping the *Punta Gorda* right a-head, 'till you discover the said Tower by the West-side of the Castle, and then direct your Course towards the City to gain Sight of the *Piedras de la Gallega*,
B you'll

you'll sail within a Musquet-shot of them, leaving them on the Larboard Side, 'till you discover the Ovens or Lime-Kilns, by the Land Side of the Castle; which Lime-Kilns are about half a League to the S. E. of the Tower of *Mercy*; and appear like Hummocks; as soon as you see the said Oven or Kilns, steer directly towards them, keeping the said Castle of *St. Juan de Ulva* on the Larboard Side; for by this Means you'll enter the *North* Channel, and keeping on the same Side, you'll sail S. E. by S. in five Fathom Water for about a Mile into the Body of the Channel.

From Campechy to La Vera Cruz in Winter.

If you sail from the Port of *Campechy* in the Time of the Northerly Winds; you must direct your Course to the W. N. W. because the Currents set to the *South*; and steering this Course you'll come in sight of the Shoals of the *Arcas*, along which you must coast by the North Side; and as soon as you are out of Soundings, change your Course to the W. which will certainly bring you into the Latitude of *Punta delgada*; but when you are got upon the South Side of the aforesaid Shoals of the *Arcas*, you must steer towards the W. N. W. 'till you are in Sight of the said *Punta delgada*; from which you are to sail for

for the Port of *La Vera Cruz*, in the manner we described above.

If you sail from the Port of *Campechy* to *La Vera Cruz*, in *Summer Time*; direct your Course toward the W.S.W. 'till you are out of Soundings, through which you have passed on the South Sides, and then direct your Course towards the West 'till you are in the Latitude of the Port of *La Vera Cruz*, which lies in nineteen Degrees and ten Minutes North; but if you should lose Soundings in a less Latitude, and steer W. yet you'll find the Latitude increas'g, because the Currents at this Time set toward the N.W. besides some Allowance is to be made for the Variation of the Needle; and continuing your Course in the said Latitude of nineteen Degrees and ten Minutes, you'll fall in with the Port of *La Vera Cruz*, as aforesaid.

To go to *La Vera Cruz* without all the Shoals of the Soundings of *Campechy*, you must sail into the Latitude of twenty-five Degrees, till you think you have got past *El Negrillo*, or W. of its Meridian; and from thence in Time of *North Winds*, direct your Course S.W. and endeavour to make *Punta delgada*; but in Time of *Trade Winds* you must steer S.S.E. 'till you reach the Latitude of nineteen

From Campechy to La Vera Cruz in Summer.

Without the Shoals of Campechy to La Vera Cruz at any Time.

Degrees and ten Minutes, and from thence W. to find the Port of *La Vera Cruz*; to which it must be observed you may also come by the S. E. Side of the Castle in Summer-Time, if your Ship draw somewhat less than four Fathoms of Water; for altho' the Channel of the West or Lee-side have six or seven Fathom, yet the Entrance of the Port, on the S. E. side, has barely four Fathom and a half; but Ships of the Draught aforesaid may come in between the Island *Sacrificios* and the Main Land, where there is a Channel of seven and eight Fathom Water, that runs N. and S. between the Islands of *Verde* and *Sacrificios*; in the Middle is a Ridge of Rocks with Breakers, called *los Paxaros*, between which and the said Islands there are Channels, but only fit for small Vessels or Frigates; and between the Island *Verde* and the Island of *Blanquilba*, lie the Shoals of *Anegada*; which make some Channels with those Islands, where a Ship may sail, and both these Channels have six Fathom Water: The Channels between the Island *Verde*, and the *Anegada*, run E. and W. and between the *Anegada*, and the Island *Blanquilba* lie W. S. W. and E. N. E. and the other Channels between the aforesaid middle Causeway or Ridge, the Isle *Sacrificios* and
Island

Island *Verde* lie N.W. and S.E. Between the great and little *Gallega*, is a Channel for small Vessels, which lies N.E. and S.W. and within this lies the Shoal or Flat about a Cannon-shot to the S.E. of the Castle of *St. Juan de Ulva*, and E. and W. with the Mole of *La Vera Cruz*: On the Out-side of the Shoal there is five Fathom Water; this Shoal is very dangerous, and has Breakers only when there is a great Swell, or bad Weather.

If you sail from the Port of *La Vera Cruz* to that of *Campechy*, in Summer-Time, endeavour to go by the Coast of *Guazaqualcos*; which Coast lies E. and W. and at these Times, as the Wind is apt to vary between the N.E. and S.E. you'll get sooner to the Eastward, without Occasion to tack the Ship often, and above all you are not to exceed the Latitude of nineteen Degrees and a half, for by this Means you'll run into the Soundings on the South Side of the *Arcas*, which will bring you in Sight of the Coast; along which you must ply to Windward to the Port of *Campechy*; but if you sail from *La Vera Cruz* in Time of the Northerly Winds, you must steer N.E. 'till you are in twenty or twenty one Degrees of North Latitude, and there, if you meet with a North, you must steer E. to get

From Vera Cruz to Campechy, at all Times.

into Soundings within the Shoals, if it be in the Day-Time ; but if you meet with Sand or Stone in forty or forty-five Fathom Water, you are near the Shoals, and may sail into sight of them, after which you must take care to avoid them, as much as possible, passing by them where the Sea seems most favourable ; but if you sound in the Night-Time and find the said Gravel or Stone, steer towards the South, 'till you meet with Mud, which you'll have in thirty three Fathom ; and from thence you may sail E. where you'll never fail of still finding Mud, and may continue this Course safely into twenty-six and twenty-seven Fathom, for you are out of Danger and in the Channel, so long as you have Mud, therefore care should be taken to sound every half hour : As soon as you come into twenty-five Fathom, and find a sandy Bottom, you may be assured that you have already got within the Shoals, and have gone through between the *Triangulas* and the *Arcas* ; and that by this Course you are got into twenty-one Degrees of *North* Latitude ; but if you should sound in the twentieth Degree of Latitude, and find Mud in the Night-Time with forty-five Fathom Water, you must sail E. and take care to sound every Hour, and if you find the
Bottom

Bottom Sand and Mud, you are not two Leagues from the *Arcas*, on the S.W. Side of them; but if you find Stone, you are upon them; if you find Gravel and thirty Fathom Water, you are to the W. of them; but if you take up loose Mud, at fifty or sixty Fathom, and find the Soundings lessen of a sudden, you are to Leeward, and upon the Coast of *Tavasco*, or of *St. Peter* and *St. Paul*; from whence you must keep off, and go thro' the Shoals to *Campechy*, directing your Course according to the Soundings, as we before described.

If you sail from *La Vera Cruz* to *Havannah* in Time of the *North Winds*; steer your Course towards N. E. and N. N. E. to gain your Latitude before the *North* blow strong upon you, and if it catches you in the Latitude of twenty-two Degrees, sail E. 'till you are in Soundings, and if you find forty Fathom or more in the Beginning with Mud at the Bottom, and continuing your Course find the Bottom Stone in forty Fathom, you may conclude you are then upon the *Trianguls*, or new Shoals of *Manoel Antonio*; but if you should find forty Fathom and the Bottom Sand, you are upon the Islands of *Arenas*, therefore endeavour to keep the Mud 'till you meet with twenty-five Fathom and Sand,

From La Vera Cruz to Havannah at all Times.

when you'll be upon the Shoals, which you must take care to avoid, in the Time of the *North Winds*, and you'll come out of Soundings between the *Negrillo* and the Island of *Vermexa*, steering as far N. as you well can, which will bring you into thirty Fathoms, and then for two or three Hours you'll find no Alteration of the Soundings; after that, for an Hour or an Hour and a half you'll find forty and forty-five Fathom, and in a little time you'll get no Ground with your Lead; upon which direct your Course towards the N. E. 'till you gain the Latitude of twenty-six Degrees, and in Case the North still blows, you must steer to the S. E. which will carry you clear out of the Soundings of the *Alacran*.

But if you sail from *La Vera Cruz* to *Havannah* in Summer-Time, steer your Course 'till you come into the Latitude of twenty-five Degrees; then sail E. into the Soundings of *Las Tortugas*, and from thence run over for the *Havannah*, as will be directed in due Place.

*Advertisement
concerning the
Port of La
Vera Cruz in
dark Days.*

The best Mark to know any Port by, when you are sure of its Latitude, is the Height, Form, and Situation of the Land near it; but many have not believed this Truth,

Truth, when coming near the Coasts, in hazy Weather, they have seen the Land appear under a different Form, and with different Marks, from what they ever observed before; and so find themselves perplexed; which indeed is no Wonder, if they have not made proper Observations of the Form and Height of the Land, which is the truest Guide: On this Account I very much approve of the *Portugueze* Axiom, which says, *If you would know the Land, go to it.* If it should happen in sailing for the Port of *La Vera Cruz*, that we seek the *Punta delgada*, and meet with it in a foggy Day, when the Land is all obscure, and cannot be seen as in clear Weather; then, to overcome these Difficulties, if you are upon the said *Punta delgada*, and cannot well distinguish its Signs, keep close in to the Shore, for if you be near it, you'll find that the Coast to Windward runs towards the N.W. and the Leeward Coast towards the S.S.W. If you are off *Bernal*, you'll find the *Punta delgada* to the North; and from *Bernal* to Leeward the Coast stretches to the South as far as *St. Puala*; and upon this Coast, as soon as you are two or three Leagues from Shore, you'll find twenty-five or thirty Fathom of Water;

Water ; if you find Sand, you are upon the Plains of *Almeria* ; but if Mud, you are off *Punta delgada* ; if you meet with loose Fuller's Earth, you are between *Bernal* and *Chacalaca* ; and at this Place the Land, tho' it may be hazy and obscure, will appear full of high and large Mountains ; and notwithstanding the Mountains of *St. Martin*, and the *Pan de Misapa*, may appear also to Leeward of the Port, yet these Mountains are much less ; and besides, no Part of this Coast lies N. and S. and altho' there is Land that runs N.W. and S.E. it is low Land. To Leeward of *Alvarado* there is thirty Fathom of Water, with Gravel about a League's Distance from the Shore.

If you are at Sea and about four Leagues off the said Port of *La Vera Cruz*, you'll hardly see the Land in hazy Weather ; but you'll have Soundings in forty Fathom of Sand and Gravel, but in some Parts rocky and muddy ; and all this sort of Bottom is found from the Shoals of the *Gallega*, to the *Cabezas de Alverado*, which is all over Islands and Rocks, where you'll meet with Stone when you come into twenty-five or twenty Fathom ; by which Marks the said Places are known.

If

If it be in the Night Time, for it is in the Night very difficult to enter this Port of *La Vera Cruz*, you'll govern your self according to the Marks of this Port, which are described elfewhere, along with the particular Marks of other Ports; on which account it will be highly necessary to have the best Maps or Charts, to know how to distinguish the Coasts: In clear Weather, if you should be upon the said Coast of *La Vera Cruz*, the Signs and Marks are well known as follow: The Castle of *St. Juan de Ulva* lies almost E. and W. with the *Volcano de Orizaba*, which is thirty Leagues within the Land, and is a burning Mountain, very high and cover'd with Snow; some Persons have seen it other 30 Leagues off at Sea, and it is the best Mark to this Port; for as soon as you see the said *Volcano*, if it lie towards the W. you are to the E. of the Port; and if it lie to the S. W. you are to Leeward of the Port; but if it lie to the N. W. you'll be to the Windward of the said Port and Castle.

Advertisement concerning the Port of La Vera Cruz in clear Weather.

The Castle of St. Juan de Ulva, and the Volcano de Orizaba lie by the Course of 73 Degrees 30 Minutes from S. to W. and the same from N. to E.

From the said *Volcano* towards the N. E. run out some thick and long Mountains, with a small Hill or Eminence in the Middle; which from its Form is called the Trunk

of

A DESCRIPTION of the

of *Perole*, and from this Hill they run to the *Punta delgada*, with which they lie N. W. and S. E.

The *Punta delgada* is a Point or Skirt of the said Mountains; tho' it does not seem to appear so when you are E. and W. with it, but all Main-Land; yet when you come to the North or South Side of it, then it very plainly appears to be a large Skirt running out from the Mountain, and diminishing till it terminates in the Sea in a plain and narrow Point. The Mountains of *Villa Rica* are three Mountains, of a moderate Height, lying upon the Coast to Leeward of *Punta delgada*, and terminate at *St. Puala*, and run from East to West. The Westernmost is the largest, and the Eastermost is the least; each of which narrows away into a Point like a Fryar's Hood, and all three together have the same Appearance, by which Mark they are well known. From the aforesaid *Volcano* to the S. W. the Mountain begins to diminish till it disappears; and from *Old Vera Cruz* to the Mountains the Coast is low and hummocky, and lies N. W. and S. E. Along this Shore there is no high Land, except that which appears within the Land, and
runs

runs, as we said before, from the aforesaid *Volcano* towards the S. W.

The Mountains of *St. Martin* are three, running from E. to W. and the first falls down upon *Roca Partida*, by the Sea Coast, which being the greatest, has been a *Volcano*, or burning Mountain; the middle one is of a moderate Height, with an Eminence or Hill in the Middle, that appears in the Nature of a Watch Tower; the last to the W. is round, running out with a Skirt or Declension towards the West, where it diminishes to a Point: All three are very well known by the Separations or Breaks between them, and by their not being so great as those of the *Volcano de Orizaba*, which when lying E. and W. with the Mountains of *St. Martin*, seem to be all one Mountain, save only that there extends towards the South, a long even Mountain; and at the Distance of six Leagues there appears another square Mountain resembling a Smith's Anvil, which they call *El Pan de Misapa*, and by it this Leeward Coast is well known; for from the *Pan* of *Misapa*, the Mountain diminishes towards the S. W. within the Land, 'till it terminates in low Land; and such is all the Coast of *Misapa*, on the East Side.

The

*Coasts of New
Biscay not in-
habited.*

The Coasts of *New Biscay*, which are on the North Side of the *Mexican Bay*, are all even low Land, and marshy; they run from E. to W. beginning from the Lake of *St. Bernardo*. This Coast is every where shallow, for in some Places we find Soundings fifteen and twenty Leagues off at Sea, and good Anchoring Ground. From the *Rio Baxo* as far as *Cape Lodo*, all the Coast is likewise low and shallow, having but two and three Fathom of Water; and at seven or eight Leagues from Land, it scarcely can be seen from the main Top. The Port belonging to it, is that of the *Lake* or *Laguna de la Ascension*, where the Channel is but two Fathom deep, and has an Island in the Middle.

*From the Lake
of St. Bernar-
do to the Coast
of New Anda-
luzia not inha-
bited.*

The Coasts of *New Andalusia*, which are on the West Side of the *Mexican Bay*, lie N. and S. reaching from *Del Rio Morpata* to the Lake of *St. Bernardo*, which is a very large and spacious Bay. Its Entrance lies N.W. and S. E. and is four Fathom deep: In this Bay the *French* endeavour'd to settle, but within a Year, of a hundred Families that came, the major Part died; so they attempted it no more: It is low Land, and very Marshy. Upon the Coast are some
Creeks

Creeks proper to anchor in ; but fifteen and twenty Leagues to the Sea it is very deep : Within a League of the Land we find ten or fifteen Fathom ; and all the Coast runs in this manner, with five Fathom close to the Shore.

The Coasts of *New Spain* run from the River *Morpata*, and Lake of *St. Bernardo*, as far as *Old Vera Cruz* ; and from thence ranges South Eastward to *Misapa* ; and from thence to the Lake of *Terminos*, which is on the South Side of the *Mexican Bay*, it runs E. and W. that is, taking the Direction by the general Course of the Land ; for from one Part of the Coast to another, I shall for the most part leave it to your self to observe how the particular Creeks, and Capes, lie in respect of each other ; as also their Latitudes, and the Distances between them ; tho' in some Places, I shall take care to describe the Distances, where it is necessary they should be known.

The River of *Morpata* is a great, rapid, and unnavigable River ; and from it to that of *Tampico* makes a Bay towards the S S. W. in the Midway between these Rivers, within the Land, is one single high Mountain, ranging from N.W. to S.E. called the
Moun-

River of
Tampico.

Mountain of *Tama Olimpa*; and from hence to the River of *Tampico* is low Land, with Banks of Sand, extending towards the S.E. and to the South of *Rio de Tampico*, is a great Bank in Length about four Leagues; at the Beginning of which, towards the North, is the River of *Tampico*; this said Bank is called *La Cuchilla*, being the Mark for *Tampico*, which is inhabited by Fishermen; to which several Frigates, and Boats, carry Salt from *Campechy*. The Channel here is large, and its Entrance lies towards the N.W. It has three Sand Banks, and a Bar, upon which we find but fifteen *Palmos* or ten Foot Water.

Cabo Roxo.

From the said River of *Tampico* to *Cabo Roxo*, the Land lies N.W. and S.E. and when you are past the great Sand Bank of the *Cuchilla*, the Coast runs low, with more Sand Banks, to *Cabo Roxo*, which is sandy and level; between this *Cabo Roxo*, and the said Bank of *Cuchilla*, there are two Sand Banks higher than the rest, resembling Sugar Loaves, called *Diablos de Trias*; near which are two *Indian Towns*, and a Place for Ships to take in Water, called *Charca*; and between this Coast of *Cabo Roxo*, and the Coasts within, there is a great Lake, which

which reaches to within a League of *Tampico*. Its Entrance lies between *Tampico* and *Tuspa*: It is navigated by small Boats, the Coast being full of Fishermen.

To the S. E. of *Cabo Roxo* lies the Island *Isla de Lobos*, of *Lobos*, encompass'd by a Ridge of Rocks, between which and the Island of *Lobos*, a small Boat may pass, there being towards the N. E. a Passage of good Water, and on the S. W. Side there is a very good Anchoring Place of eight or ten Fathom Water; on the North Side of it lies a Ridge of Rocks. Now, altho' no Mention is made but of the Island of *Lobos*, yet on the N. W. Side, about a League from it, there is another little Island, called *Isla Blanquilla*, to which the Ridge of Rocks from *Lobos* reaches; they are here sandy, having some Palm Trees growing upon them: Towards the West of the said Island of *Lobos*, and *Cabo Roxo*, within Land there is a great Mountain, called *St. Juan*; in the Middle of which is a Ridge, or Hill, like a Saddle, which may be discern'd ten Leagues off at Sea.

From *Cabo Roxo* the Coast runs S. W. as far as *Tampico*, or the Bar of *Tamiagua*, which is the same as the Mouth of the great

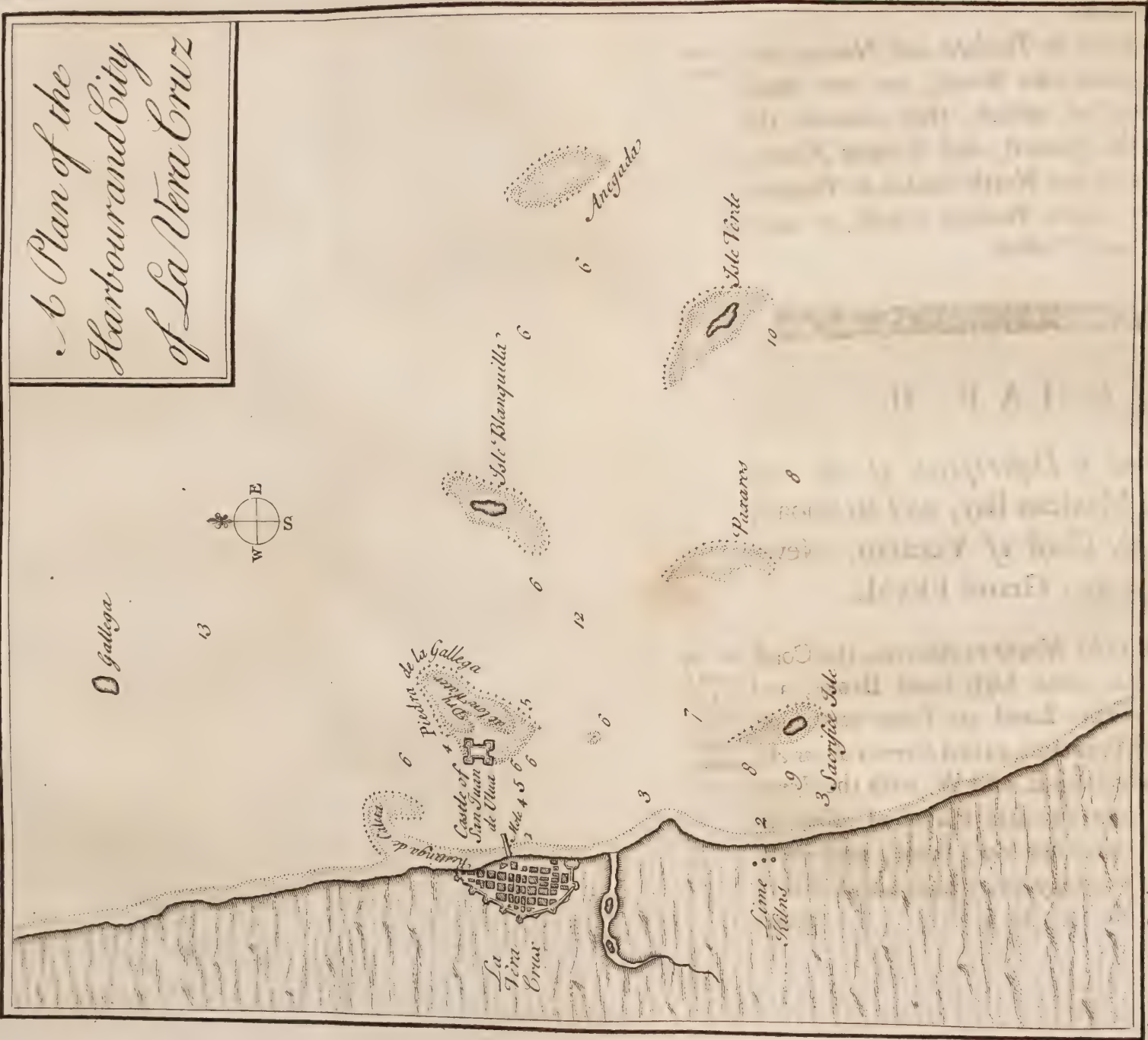
*The Lake of
Tamiagua.*

C

Lake

Lake, that I mention'd before, and is called the Lake of *Tamiagua*, so that the Coast of *Cabo Roxo* seems to be encompass'd with Water. In the Mouth of this Lake there is a small Island; and about two Leagues E. N. E. of the said Island, are some Ridges of Rocks, called the Shoals of *Tampico*, which lie N. W. and S. E. with small Channels running between them: Next to *Tampico* lies *Tuspa*, where the Coast runs to the S. E. as far as *Punta delgada*; and about three Leagues on the S. E. Side of *Tuspa*, there are other Ridges of Rocks, called the *Shoals of Tuspa*, which lie, with those of *Tampico*, S. S. E. and N. N. W. The Distance between them is about five Leagues, and on the Land Side of them you have Soundings, and Anchoring Ground shelter'd from the *North Winds*; and by keeping on the Windward Side, along all this Coast to *La Vera Cruz*, you have Soundings in eight or ten Fathom, with clean and good Ground.

Upon the Bar of *Tuspa* there is a little Peek, resembling the Castle of *St. Juan de Ulva*; and not far from it, towards the North, are two high Hills, like unto Sugar Loaves, called *los Gregorios*, by which the
Bar



Bar of *Tuspa* is known; over this Bar only Boats can pass.

From *Tuspa* to *Tocoluta* and *Nauta*, and between these two Rivers, are two small Mountains; of which, that towards the South is the greatest, and is upon *Nauta*; The other on the North reaches to *Tocoluta*. The River where *Tocoluta* is built, is navigable by small Vessels.

Tocoluta and Nauta.



CHAP. II.

Containing a Description of the rest of the Mexican Bay, and its Shoals, with the Coast of Yucatan, New-Biscay, and Grand Florida.

FROM *Nauta* to *Almeria*, the Coast has some high Sand Banks, and within Land are some very high Mountains, called *Sierras de los Alumbres*, which lie E. and W. with the *Terra Blanca*; from the said Plains of *Almeria*, the Coast continues low, sandy, and even, and over it you may see, within Land, a very

The Windward Coasts of La Vera Cruz, and Plains of Almeria.

Punta del-
gada.

great, high and even Mountain, called the *Sierra del Papalota*: The Plains aforesaid, run as far as the *Lagunilla* and *Boquilla*; from which Places may be discovered the Land of *Cofre de Perote*, and the *Volcano de Orizaba*, which last are great Mountains described before; after the *Lagunilla* follows the *Punta delgada*, which lies near the Sea; and is the Skirt of a great Mountain which has a Break in the Middle, that causes it to appear in the manner of two Mountains, called by some *Los Atriscos*, and by others *Los Herreros*, or *Los dos Hermanos*. In *Boquilla de Piedras* the Boats take Shelter, there being good Water. Off the *Punta delgada* appears the Rock of *Tortuga*; and the Shore along the said *Punta delgada* is not clean, on account of a stony Ridge running from it, about the Distance of a Gun-shot: Towards the South of the said *Punta*, is a small Bay called the *Ganada Bobo*, where there is an Head Land, under which a large Boat may anchor and find shelter; and towards the North, tho' we find six and eight Fathom Water, and good anchoring Ground, yet there is no Safety for a Ship, because the Sea breaks very much upon the Shore.

From

From *Punta delgada* to *Old Vera Cruz*, Bernal.
 the Coast runs South, and upon *Bernal* there is
 a great Hill like a Sugar Loaf, called *Bernal
 el Chico*; where a small Vessel may take Shel-
 ter. Between the said Hill and the Coast of
Bernal and *Sampuala*, are the Mountains of
Villa Rica, mentioned before; and from
Sampuala to *Chacalaca*, the Coast consists of
 Sandy Islands or Banks of different Heights;
 and from *Chacalaca* to *Old Vera Cruz*, the
 Sand Banks are low and level: But within
 the Coast the Land is all high, as was before
 observed; and in this *Chacalaca*, is a Watch
 Tower that gives Notice to *New Vera Cruz*,
 of every Thing observed at Sea. Off *Old
 Vera Cruz*, is a Sand Bank very high and
 bare; and the like we find to the South, as
 far as *Rio de en Medio*; and along the Coast
 that runs S. E. from *Old Vera Cruz*, the
 Sand Banks appear as far as *New Vera Cruz*.
 Upon *Punta Gorda* is a Sand Bank round
 and bare, which looks reddish when the Sun
 strikes upon it: The River of *Old Vera Cruz*
 is fit only for large Boats.

From *New Vera Cruz* to *Medelin*, the Medelin.
 Coast runs low, with little Hillocks, to the
 Distance of two Leagues, from the said Ri-
 ver of *Medelin*, which has a Bar, and is fit

only for great Boats: At some Distance off lies a sandy Island or Bank, on the S. E. Side whereof grows abundance of Wood. On this Coast lies the Island of *Sacreficios*, with an anchoring Place of eight Fathom, on the South-side; the Bottom in some Places being Stone: Upon the Coast over-against this Island, are the *Ovens* or *Lime-Kilns*; and on the South of the Island *Verde* you may also anchor, but not safely with a strong Northerly Wind.

Punta de Anton
Lisardo.

From the River of *Medelin*, to the *Punta de Anton Lisardo*, the Distance is three Leagues; the said Coast has its sandy Islands or Banks, some of which are woody; the said *Punta* being flat, and also woody: The Sea in this Place is very boisterous, and the said *Punta* has a small Bay fit to shelter a Boat. On the North-side of this *Punta*, about a League off, lies *Isla Blanca*, which is a small Island that consists of white Sand, even with the Water; by the South-side of it there is a good anchoring Place, where the great Boats that trade from *Alvarado* take shelter; and between the said Island and the *Punta de Anton Lisardo*, there is a Channel of seven and eight Fathom, with a good sandy Bottom; and about a Stone's-throw towards N. E.
of

of the Island *Blanca*, begins the stony Ridge *del Palo*, and between them is a Channel of five Fathom, but narrow, called *Canal de Juan Grande*; the said stony Ridge of *del Palo* stretches to the S. E. followed by another, called *le Rizo*; and after that by another, called the *Anegada Grande*, and others, called *Raviorcados*; and then follow the *Cavezas*, which were two small Islands, but sunk by a Storm, and now the Sea constantly breaks upon them; they lie about five Leagues to the N. of the River *de Alvarado*. From the stony Ridge *del Palo*, all the said Shoals run S. E. to the Distance of nine or ten Leagues, as far as the said *Cavezas*; and from hence to the Leeward are no more Shoals toward the Sea. Between the said stony Ridges, there are Channels of ten and twelve Fathom Water, large enough for Ships to go in and out, and when Necessity requires, may shelter from the *North Winds* near the said stony Ridges: for I have seen a *French Ship*, which enter'd this Way, and shelter'd herself near and within the stony Ridge, called *del Palo*, which is the greatest: Between them and the Coast is a Passage of ten and fifteen Fathom as far as *Alvarado*.

A DESCRIPTION of the

From the *Punta de Anton Lisardo* to the *Rio de Alvarado*, the Distance is about seven Leagues; and along this Part of the Coast are high sandy Islands or Banks, some whereof look red, and those on the River cause a great Fall, which may be seen off at Sea, and you sail towards 'em, for the Mouth of the River lies there. The Sand Banks on the N. W. Side make Eddies, and are larger than the others; and the Sand Bank upon the Mouth or Entrance appears as a Rock; close to which is a Channel of sixteen *Palmos* or eleven Foot Water: In the Middle of the Entrance is a Bank, upon which the Sea always breaks, called *el Buey*; tho' it often shifts its Place. The River is very rapid and deep, with many Towns upon it; one of which, about twenty Leagues up the River, is call'd our Lady of *Casamaloapa*; from the said River of *Alvarado*, the Coast runs with a double Row of high Sand Banks; and about a League to the Leeward, there is a round Bank, much higher than the rest, of red Sand, called *el atto de Simon*; and this, with that of the Rock of the Channel, makes the Appearance of a Fall off at Sea, and points out the Mouth of the River; and on the said rocky Eminence of the Channel is placed the Watch

or

BAY of MEXICO, &c.

or Signal House of the Town of *Alvarado*; and on the said Coast to S. E. about nine Leagues off *Alvarado*, lies the River *de Cavannas*, which is a rapid River, and formerly the Ships used to shelter there from the *North-Winds*; it was inhabited by Fishermen, but at present the Mouth of it is closed up, so that it cannot admit even of a small Boat; and the Sign to know when you are upon this River, is to look within the Land to the Mountain of *St. Martin*, which is known by a Hill upon it like unto a Watch Tower: This Mountain lies N. and S. with the Mouth of the said River of *Cavannas*. All along this Coast is deep Water, and bold too: It happen'd that a Ship struck upon this Coast, and all the Crew were saved because they run ashore near the Mountain; about two Leagues to Leeward of *Alvarado*.

Two Leagues to the same Side of the River of *Cavannas*, there are, near the Shore, some little Islands, which run about a League in Length, and are called *El Atajo*, and this is the worst Part of the Coast.

From the River of *Cavannas* to the *Puntilla*, which is a League, the Coast runs S. E. and on this *Puntilla* which is stony and flat, the Coast terminates in small Hillocks, making

making upon the said *Punta* two round Hills, which seen from far look like little Islands from this *Puntilla* to *Roca Partida*, there is a League's Distance, and here lies the great Mountain of *St. Martin*, which runs to *Pan de Misapa*: All this Coast is steep too and covered with Trees. Towards the Sea are high and craggy Cliffs, with Hollows and Caverns, which in bad Weather cause strange Noises and Echo's that are often heard at *Alvarado* and *Guazaqualcos*. There was a Ship driven by the *North Winds* (without knowing where she was in the Night-Time) upon these Rocks of the Mountains *St. Martin*, about a League from the Land; it became calm on a sudden; and in the Morning finding herself under that mountainous Place, she anchor'd and continued there 'till the Breezes came and so weigh'd and stood off to Sea. From the said *Puntilla de Roca Partida*, there are two small Rivers of good Water, and the *Roca* has two small Islands adjacent thereto, and a sandy Cove on the N.W. Side; and on the S.W. Side is another great Cove, both which are Shelters for great Boats; the one from the S.W. and the other from the *North Wind*. A League to the S.W. of this *Roca Partida* lies another great round

Roca

Roca or Rock, called *El Morro de St. Martin*; and from this Rock or *Morro* the Coast runs South to a sandy Shore; which is a League and half off, where there are three Rocks full of Cavities; and the last towards the S. casts from it self a Spring of Water, which falls into the Sea: From this last mentioned Rock begins a Shore, which runs half a League S. S. E. at the End of which Shore is the Lake or *Laguna* of *St. Andres*; the Entrance whereof lies N. and S. and has 15 *Palmos*, or ten Foot Water; within it is a good Lake, running to the W. about a quarter of a League, where it is very shallow; but within the Bar there are four Fathom: It is well shelter'd, and contains two Sorts of Fish, called *PARGOS* and *ZARGOS*.

On the other Side, to the S. E. of the Mouth of this Lake, you'll find a Ridge of large and round Stones very rough; and within the Lake you'll see much Water dropping from the said Ridge, which is the best I ever drank: To find the said Lake on the Coast; when you are come near the Rocks, look for the Shore, (for there is no larger near those Mountains of *St. Martin*) and as soon as you have seen it, coast along Shore towards the S. E. and you'll find the
Mouth

Mouth, or Entrance, between the End of the said Shore and the aforesaid Ridge; when you come upon this Coast, you may see the Lake within the Land from the Top of any Vessel; and off at Sea it lies E. and W. with the first Point that runs out from the South Side of the great Mountain of *St. Martin* into the said Lake.

Punta de Sapotilan.

From the Lake of *St. Andres* the Coast runs E. S. E. to the *Punta de Sapotilan*, and *Costa brava de Sabrucales*; the said Point is flat and low, declining from the Edge of the Mountains to the Sea; upon it are little Islands, and Stone Ridges, which run half a League into the Sea; and along the Coast about a League; between them and the Point there is a Channel for large Boats, and between the said little Islands there are small Channels for such Vessels; and 'tis customary for them to take shelter under the said little Islands, near a Ridge which lies upon the Point, four Leagues N. of *Pan de Misa-pa*: To the South of which, is a little Bay; and about a League and half to the South of this Bay is a small River, called *Del Portrero*; from which River the Coast runs S. E. two Leagues and an half to another great Rock, which has at the Bottom towards the Sea

Sea a Jetting out or sharp Point; and four Leagues from the said Rock, or *Punta de Sapolitan*, to the *Punta de Sayultepeque*, upon Punta de Sayultepeque y Pan de Misapa. which lies the *Pan de Misapa*, terminates the *Costa brava* with all the Mountains; so that it begins with *Roca de Farrelon*, and ends with another Rock of the same sort. Between the River of *Potrero*, and the said Rock of *Sayultepeque*, the Coast has two Ridges or Peaks like Rocks, of several Colours; from which and the Rock of *Sayultepeque* rise the afore-said Mountains of the *Pan de Misapa*. From the said Rock of *Sayultepeque*, about a League to the South East lies another Rock called *El Potrero de San Juan*; between these Punta de San Juan. Rocks is a Bay, in the Middle of which is a small Rivulet of sweet Water; and on the South Side of the said Rock *Potrero de San Juan*, a small Vessel may take shelter, and find good Water. This Rock of *San Juan*, and *Pan de Misapa*, lie N. W. and S. E. with the River of *Guazaqualcos*, which is six Leagues; and within Sight appears a Coast that is raised by Sand Banks, that lies E. and W. To the S. E. of the said *Punta* you'll see some Sand Banks quite bare; and there are no other in all this Coast, which serve as a Sign or Mark to shew the River
of

Laguna de
Misapa.

of *Guazaqualcos*, and look reddish ; at the End of the said Banks, and its Point towards the East, is the Entrance or Mouth of the said River of *Guazaqualcos*, which Entrance lies N.W. and S. E. with the *Pan de Misapa* : On the other Side, to the East of this River, are Banks of a low Mountain, which returning to the *Punta de San Juan*, make the largest Bay on all this Coast, called the Bay of *Misapa* ; the Lake of which lies about two Leagues to the South of the said *Punta de San Juan* : The Coast on the N. W. Side of the said Lake consists of Sand Banks, which compose one large Mount or Bank ; and on the S. E. Side lie some low and white Sand Banks : Between those and these lies the Mouth of the Lake of *Misapa*, which contains but four or five Foot Water, but it is a very good Shelter for great Boats. The Sign or Mark by which to know this Bay, and Lake of *Misapa*, when you are off at Sea, is to look within Land, to the Skirt of the Mountain of the *Pan de Misapa*, which declines towards the S. or S. W. for when the End of the said Skirt lies W. S. W. from you, then the Bay and Lake of *Misapa* lie W. S. W. also : Within the Lake of *Misapa* there is a little Bar, and an Inlet of little Water, which

which has a Communication with the River of *Guazaqualcos*; so that the Land from the Lake of *Misapa*, as far as *Guazaqualcos*, is an Island, and for the most part, the Coast runs E. and W. for about four Leagues: The Coast is bold too, tho' the Shore be sandy; and upon it is an excellent Rivulet of mineral Waters, which are called the *Rivers de Santiago*; at the East-End of the great and bare Sand Banks aforesaid lies the great River of *Guazaqualcos*, (off which is a Sand Bank that never shifts) where there is twenty-two Foot at High-Water, and eighteen at Low-Water, it is about seventy or eighty Yards broad; and within the Mouth of the River is seven or eight Fathom Water, and five Fathom on either Shore: Its Entrance lies S. by W. and the Channel is in the Middle, along which sail between the Breakers, 'till you are past the Bank, and then you may anchor in any Part of the River; on the West-side of the Sand Bank, lies the *Choca* or *Cottidge* of the *Vigiero* or Signal-House, near which Place, on the one Side, and on the other, are small Rivulets of very fine Water: Five Leagues up the River, on the South Side, is an old Building Dock, or Yard, where two Ships have been built; and from hence the Road runs
to

Again the River of *Guazaqualcos*.

Rio de San
Anna ô To-
nela.

Rio de Ta-
vasco.

to *Acayuca*, about seven Leagues; between which lie several other Towns: It is a very fine River, and the least Depth of Water is four Fathom: The Place is very fertile, and full of Wood, and Cattle, which I visited by his Majesty's Order, to see if it were proper to build in; from the River of *Guazaqualcos* to the Lake of *Terminos*, the Coast lies E. and W. It is mountainous Land; and in some Places the Hills are high; from *Guazaqualcos* to the River of *Santa Anna*, or *Tonela*, the Distance is five Leagues; and about four Leagues up this River there is a Town, called *St. Anna*, where it separates into two Streams, each of which have Towns that are inhabited: From the two Mouths of this River, you may go to *Cupila*; and both these Streams have a Communication within the Land, forming an Island between them. To this follows *Chitepeque* and other Rivers, as *Tabarcas*, *St. Pedro*, *St. Paulo*, and the River of *Tavasco*, where is a Town governed by a Mayor: To know when you are upon *Tavasco*, look within the Land at some Mountains, (for there are no others) called the Mountains or Hills of *Chiapa*; and when you are N. and S. with the said Mountains, you'll be also N. and S. with the said

said River of *Tavasco*: To this follows the Lake of *Chicalango*, and then the Lake of *Terminos*, and between *Tusta* which lies on the W. of the Lake of *Chicalango* to the Lake of *Terminos*, are careening Places for Ships, called the *Chicalango*, where is a very even Grove of Mangrove Trees, and here if a Ship runs ashore in a North, the Crew may be saved.

The Lake of *Terminos* is a very large one, and has little Islands; the Entrances are not clear of Rocks, which you must pass on the East Side, and to the West of the said small Islands, which make two Entrances of clean Ground; and here Log-Wood used to be cut; on account of its Abundance the Foreigners resorted to this Lake, but the Inhabitants of *Campechy* hindered them for many Years with their large Boats called *Pinaquas*.

Navigating from the Capes de *Corrientes*, and of *San Anton* to *La Vera Cruz*, or Port of *Campechy*, you must sail into the Soundings of Cape *Catoche*, in the Latitude of twenty-two Degrees, and you'll find the greatest Sounding fifty Fathoms; in which Parallel you must sail till you are in twenty or twenty-two Fathom, but not into less than eighteen Fathom, for off the Mouths of *Conil* there

*The Lake of
Terminos.*

*Course from
Cape de Cor-
rientes and
San Anton to
La Vera Cruz
and Campe-
chy within
the Alacran;
which is the
safest at all
times, and bet-
ter than with-
out, which
Course has been
abandoned.*

D

are

are Shoals, where from eighteen Fathom you'll come suddenly into twelve, and you ought to avoid them; for in twelve Fathom lies a Shoal, called *El Corsario*, which is but just cover'd with Water, and some have seen it dry: The Bottom is stony; therefore observe that keeping in twenty or twenty-two Fathom you are safe; and in these Soundings take care to keep along the Land Side of the *Alacran*, not exceeding twenty-five or twenty-six Fathom, because the Shoals of the *Alacran* lie in thirty Fathom without as well as within; and it may be seen without, by the breaking of the Water. In twenty Fathom is the Channel, the Bottom in some Parts thick Sand, in others small Cockle-Shells, or Sand and Gravel; when you are near the Shoal of *Sisal*, you will find but twelve Fathom, therefore take Care to found often in order to avoid falling upon it; It is a stony Shoal, and the Water is seen to break upon it: The Course of all this Channel is W. by S. with twenty Fathom Water: Observe that when you find eighteen Fathom, and afterwards twenty, and then again eighteen, with the Bottom Stone, then you are quite clear of the Shoal of *Sisal*, and are upon the Shore of *Punta de Piedras*, which sort
of

of Bottom runs from the Coast to the Shoals of *Alacran*, which is the best Mark or Sign of the Soundings in all this Passage; but when you find the Bottom Stone, steer your Course W. by S. and within an Hour you'll loose these craggy Islands, and be in twenty or twenty-two Fathom, with Sand and Gravel, and then presently in twenty-five Fathom and Sand, after that in twenty-six or twenty-seven Fathom, with small white Sand, when you are off *Desconicida*; and then if you have the abovesaid Soundings and Depth of Water, and are bound for *La Vera Cruz*, steer W. S.W. which Course will bring you into deeper Water, where you'll find Sand like that of the Hour-Glass in twenty-eight or thirty Fathom; when the Sand is mix'd with Mud, you are near the Channel, which lies between the *Triangulas* and the new Shoals of *Manoel Antonio*, within which Channel you'll find more and more Water, and the Bottom Mud: In forty-five Fathom you are got quite clear of the Shoals, and will in a short time be out of Soundings: But if you find your self in thirty-two or thirty-three Fathom and Mud, sound often, for if you meet with Stone, you are not quite clear of the aforesaid Shoals of *Manoel Anto-*

Keep in the Latitude of 22 Degrees, 'till you discover the Desconicida, and the Bottom keeps the same Depth to 21° 20'.

nio, and must keep off in thirty Fathom, and then you'll shortly fall into forty and forty-five Fathom, and be safe, and clear of all Danger: From the said Passage continue your Course W. S. W. which will bring you into the Channel, the Currents and Variation being here allow'd for.



C H A P. III.

Containing the Description of the Coast of Yucatan, Guatemala, Honduras, Nicaragua, and Costa Rica.

To go to Campechy by the Coast.

BUT if you are bound for *Campechy* by the Coast, and passing between *Sisal* and the Shore, find the Soundings twenty Fathom, to the Southward of the Parallel of twenty-two Degrees, suppose in twenty-one, without discovering Land; in sailing on you'll quickly get no Bottom, and be off the Passage that lies East of the Island *de Mugerres*; after which you'll enter the Passage of great Soundings, and come by degrees into twenty and fifteen Fathom, and will make the Land of the Island *Mugerres*, which is flat, and has a Grove of Mangrove Trees

Trees, with an ancient Building at the East End of it, that still looks white; behind the S. E. Point of it you may anchor in six Fathom Water near the Island, searching for the best Ground, because there are some Stones: On the N. E. Point of it is a good Place to take in Water.

From the Island *de Mugerres*, you must sail to N. N. W. and N. W. in fifteen Fathom, 'till you raise *Cayo de Cantoy*, without lessening your Soundings; for in the Passage between the said *Cayo*, and the Island, are some stony Ridges under Water; and from thence to the Coast of Cape *Catoche*, near Shore, is full of Ridges of sunken Rocks: From the Soundings in fifteen Fathom, you may see the Land of Cape *Catoche*, which is low, sandy, and full of Mangrove Trees: When the Water deepens to the N. W. you'll be clear of *Cantoy*, and run into eighteen Fathom; then steer West, keeping in eighteen Fathom, 'till you are clear of the Mouths of *Conil*, and the Shoal *del Corsario*, which was so called because it was discovered by an *English* Pirate in the Year 1669.

Having sail'd clear of the Shoal *del Corsario*, steer S. W. lessening the Soundings 'till you come into six Fathom Water, when

A DESCRIPTION of the

you'll see the Land which is low and marshy; three Leagues distance, before you make the Land, you'll see the Watch Towers upon it, that look like Ships under Sail, by which Appearance many have been mistaken; the like Watch Towers are seen upon the Rivers *Ligartos* and *Sisal*: In the Night-time you may run safely into six Fathom, and by Day into five: If you intend to pass between the Coast and the Shoal of *Corfario*, as soon as you arrive at *Cantoy*, you must look out for the Land of Cape *Catoche*, running into six Fathom; and coasting along Westward, in that Depth of Water, 'till you are got safe past the Land Side of the said Shoal, and arrived off the *Punta de Piedras*: All the Soundings from Cape *Catoche* to this Place, are thick Sand, Gravel and Sand, or Sand and small Cockle-Shells; as soon as you are up with *Punta de Piedras*, in six Fathom, you'll find Stone, and Rocks in five Fathom; therefore keep off to the N. W. in six Fathom, till you are clear of the said *Punta de Piedras*, and find deeper Water with Sand: If the Sand is white, you are N. and S. with *Desconicida*; from hence you must sail South 'till you meet with five or four Fathom, which will bring you upon the Port of *Campechy*.

If

If you would sail within the Soundings from *Campechy* to *Cartagena*, or *Honduras*, (for now this Voyage is made in that manner from *Campechy*, as well as from *New Spain*;) direct your Course first towards the North, till you increase the Depth of Water, and come into fifteen Fathom, and twenty-one Degrees of Latitude, where you are upon the North Side of the *Desconicida*; and from Desconicida in 21° Lat. hence ply to the Windward, till you arrive off *Punta de Piedras*; and when you have six Fathom you are clear of the said *Punta*, and to the Eastward of it: And if you are bound to *La Vera Cruz*, you must endeavour to sail between the Shoals of the Island of *Arenas* and the new Shoal; or between the new Shoals and the *Triangulas*, or by either Entrance as the Season admits: If you are in the Soundings off *Arenas*, and lose the Mud, you are to the Eastward of the said Shoals, and from thence you must run into twenty-one Degrees of Latitude, and find the Soundings lessen to eight Fathom, on the North Side of the *Desconicida*: Here you must tack and turn it up till you clear the *Punta de Piedras* as aforesaid; and so make short Trips between the Coast and the Shoal of *Sisal*; from four or five to nine or ten Fa-

thom Water, it is all a good and clear Ground: The Windward Fleet generally steer this Course, because the Winds in the Day-time blow out of the Sea, and are *Trade Winds* upon this Coast; in the Night-time they blow off the Land, upon which account, for the most part, there is not so frequent an Occasion to tack towards the East, for the Currents many times set Eastward in Counter Streams. But without *Sisal* they set W. N. W. and the usual *Trade Winds* continue to blow; having turn'd to Windward as aforesaid, near the Land of *Sisal*, when you are on the East Side of the aforesaid Shoal in the Off Shoar Tack, you may go as far as fifteen Fathom; sailing thus till you are abreast of the River *Lagartos*, for from hence to Cape *Catoche* there are Sand Banks on the Coast, which may be seen very plain, on the other Side of the River *Lagartos*; wherefore stand off into eighteen Fathom, and in again to fifteen Fathom, till you weather the Shoal of *Del Corsario*; for when you've clear'd that, you may stand in Shore to eight Fathom, but no nearer, because you are not clear of the *Cayo* of *Cantoy* while the Soundings lessen to the S. E. but when you find deeper Water towards the
S. E.

S. E. you are clear of the said *Cantoy*, and by degrees you'll lose the Soundings on the East Side of *Cantoy*, near the Island of *Mugeres*, which is only frequented by Pirates and Privateers; and therefore, without necessity, you are not to come in sight of that Island.

If you go to *Cartagena*, or *Porto Bello*, and have lost Soundings, you must steer away S. E. or E. S. E. in order to get Soundings on the Banks off *Cape Gracias a Dios*, from whence the Shallows run more than twenty Leagues Northerly: Having got into these Soundings, sail along the Coast, and keep a good look out; when you are in sight of *Cape Gracias a Dios* the Coast runs South, and the said Shoals with it: If the Wind or Weather obliges you to keep near the Coast, take Care to avoid the Rocks or Sand Banks that may obstruct your Passage; in this manner you must sail, 'till you meet with the main Land, the Coast of which lies E. and W. and then, tacking about, you'll advance towards the East very well, because of the counter Currents; and the Winds are favourable to you both by Day and Night upon this Coast; and thus you may coast along to *Porto Bello*, or *Cartagena*, into which

which Ports direct your Course, as I shall order in a proper Place.

But if you are bound to *Honduras*, and find you are clear of the Soundings of Cape *Catoche*, on the East Side of the Island of *Mugeres*, steer S. S. E. 'till you see the Island of the *Quanaxa*, which lies in the Latitude of sixteen Degrees and forty Minutes, upon the Coast of *Honduras*; and a little further to the Westward of the said Island, lies that of the *Racatan*; when you are near either of them, direct your Course towards the *Port de Truxillo*, or *Port de Caballos*, or any other on the Coast: And in Case the Winds should incline to the S. E. and you discover Land in twenty Degrees of Latitude, it is the Island of *Cosumel*, which is a great Island, and of a considerable Height, on the East-Side of the said Island appears some antient Buildings of *Indians*; 'tis not clear on the West-Side, but there is a good Channel between the Island of *Cosumel* and the Coast of *Bacallao*, thro' which you may pass. On the South Side of *Cosumel* is the Island of

Cosumel.

Quita Suennos

Quita Suennos in Latitude of eighteen Degrees and thirty Minutes, which has three little Islands on the North Side called *Los tres Hermanos*, or the *Three Brothers*; the

Coast

Coast without is all full of stony Ridges, as far as the Bay *de la Ascencion*; and upon this Island *Quita Suennos*, or *Three Brothers*, was lost the Galleon *Santiago*, wherefore in falling in hereabouts take care not to come too near them.

If you sail from *Campechy* for the Port of *Havannah*, you must begin your Course towards the North 'till you come to eighteen or twenty Fathom Water, and from thence steer N.E. which will carry you thro' between the *Negrillos* and the *Alacran*, which are above twenty Leagues distant from each other, and in the Middle of it you'll find forty Fathom, and in sight of its Breakers at least thirty or thirty-five Fathom: If you are E. and W. with the Head of the *Alacran*, and nearer to the *Negrillos* than to the said *Alacran* you'll get no Bottom; and when you have lost Soundings, steer N.E. if you can, or if you sail N. N. E. you are in a safe Course: If you can't enter between the said *Negrillos* and *Alacran* steer N. N. W. 'till you find thirty Fathom Water, for these Soundings will bring you between the *Negrillos* and the *Isla Vermeja* or red Island; when you have sailed two or three Hours in thirty Fathoms, you'll be within the said Entrance, and in one Hour more you'll

*The Course
from Campe-
chy to the
Port of Ha-
vannah.*

you'll find forty or forty-five Fathom, and immediately after get no Bottom, upon which steer N. E. to avoid falling again into the Soundings, which are on the North Side of the *Negrillos*; and reach to more than twenty-four Degrees of Latitude. From this Latitude you may turn to Windward, into the Latitude of twenty-five Degrees, in order to get into the Soundings of *Tortugas*; and when you are out of the Soundings of *Campechy*, observe that the Currents will set you to the N. W. in this Sea, as far as the Latitude of twenty-six and twenty-seven Degrees; and from thence forward there are counter Currents off the Coast, to the Windward; wherefore, tho' you find yourself in these Latitudes, you are in no Danger, because the Voyage is commonly shorter; and if you get into the Soundings of *Tortugas*, in twenty-six Degrees of Latitude, as soon as you find forty Fathom, steer South, 'till you lose the Soundings, and venture not into less than thirty-five or forty Fathom; for to the North Side of the said *Tortugas*, there lies a Shoal, so very steep too, that you'll have twenty-five Fathom close aboard on't; and the next Cast ashore; several Ships have run upon it, but by bracing their Head Sails to the Mast, and carrying

carrying a small Anchor out a-stern, have got off again; if you are in fifteen Fathom Water, and if it is in the Night-time, you are on the N. E. Side of the said *Tortugas*, I wou'd advise you to bring to, (for all about this Place is good anchoring Ground) 'till it is Day, and then direct your Course South, and you'll run from fifteen into ten Fathom; observing where the Sea breaks to avoid a shallow Place not clear of Rocks, which lies to the N.E. of the *Tortugas*; therefore endeavour always to keep in the said Soundings, and you'll pass by the said Shoals and Rocks; after which you'll immediately find twenty-eight Fathom, between *Tortugas* and the *Cayo del Marquez*: This Passage is shallower near *Tortugas*, than off the *Cayo del Marquez*, and from hence sailing South you'll lose the Soundings. In case you meet with forty Fathom Water on the West Side of *Tortugas*, in the Latitude of twenty-five Degrees, direct your Course to the South, 'till you lose Soundings, and then S.S.E. if the Weather is moderate, but if the Breeze is fresh, you must steer S.E. and these Courses will bring you to the Port of *Havanna* and *Cosimar*.

On the Coast of *Grand Florida*, lies the Bay of *Panfacola*, near the Bay of *La Movila*,
where

where is a Castle and a Town, which has lately been peopled by the *Spaniards*, and has a Garrison: It is a very good Bay, and has its Entrance to the North between two Points of Cliffs; but in the Middle it has six, seven, and eight Fathom Water, and within is an Anchoring Place, near the Fortrefs, called *St. Mary de Galve*, so called because it was built in the Time of Count *de Galve*; and in this Bay you must take care to moor your Ship well against the Storms which sometimes happen: This Land produces many Pine-trees, fit for Ship Mafts, whereof many are cut down and carried to *La Vera Cruz*, by a Ship that belongs to the Flota, which brings Provisions, and returns with Wood: This Bay lies with the Port of *La Vera Cruz* S.W. by S. and N. E. by N. and therefore they that come from *La Vera Cruz* to the said Bay *de Panzacola*, sail out N.E. and as they are always plying to Windward, they come upon the Coast of *New Biscay*: In $28^{\circ}\frac{1}{2}$ they find Soundings, and sail in three Fathom, 'till they come in Sight of Cape *Lobo*, which they always endeavour to find by its Soundings; the said Cape lies upon the great River of the *Palizada*, and formerly it was called the Cape of *Apalachy*; but since the new Discoveries in this
Mexican

Mexican Bay, other Courses have been found, very different from the antient ones; for they failed to the N. E. in Sight of *Cape Lobo*, and within Soundings, to make the Bay of *Panzacola*; and to continue in Soundings they coasted along in Sight of *Cayos de St. Diego*, in fifteen and twenty Fathom Water; failing thus from Coast to Coast, into Sight of the said Bay.

From *Panzacola* there is a Communication with *Apalachy* by Land, which is also inhabited by *Spaniards*; and from *Apalachy* there is also a Communication by Land with *St. Augustin* in *Florida*.

This River of *Apalachy* is a very good one, and its Mouth or Entrance makes a large Harbour, but has some shallow Places, not clear of Rocks, that run off from the Land, but in the Middle has five Fathom Water; the Course into the Mouth of the River is North, and within it is a very good Bay, and this Place lies with the *Tortugas* S. by East, and N. by West, being all a Passage of Navigable Soundings; a Trade is carried on between this Port and the *Havannah* by small Vessels: On the West Side of the Coast of *Florida*, that extends N. and S. lies the Bay of *Carlos*, from whence it comes that all this *Plazer*, or Channel, from the *Tortugas* to *Apalachy*,

palacky, is called the Bay of *Carlos*: This Bay is shallow as well as the rest of the Coast, that is to say, within Sight of it: The Bay of *Spirito Santo*, which lies in the Latitude of twenty-seven Degrees and an half, is the deepest of all this Coast, and is a great Bay of five, six, and seven Fathom Water: All the Coast is low.



C H A P. IV.

The fourth Description contains the Windward Passage, with its Shoals; the Islands of Jamaica, and Part of that of Cuba, the Coasts of Cartagena, Terra Firma, Costa Rica, and Nicarragua.

IF you come from *Old Spain*, or any other Place, and are bound to the Port of *Cartagena*; when you are off the large River of *Magdalena*, where this Description of the Coast of *Cartagena* begins, which is a River known by its having two Entrances, and an Island in the Middle, that makes an Appearance of a Ridge or Land higher than the two Points on each Side the River,

A Plan of the Harbour & City- of Cartagena

A. the City of Cartagena & Suburbs

a. Notre Dame de la Popa

b. Fort St. Lazaro

c. Fort. Manz. milla

d. Fort St. Cruz

e. Fort St. Joseph

f. Fort of Bocha Chica

g. ----- St. Philip

h. ----- St. Jago

k. Fort de la Punta



P. Harrison Delin.

A Scale of Miles.



COAST OF CARTAGENA.

River, and looks as red as Fire, and declines with a sharp Point; on each Side the Ridge there are plain *Savanas* towards the Sea: All these Points on the Entrances are full of shallow rocky Parts but narrow; and coasting along in a small Frigate to *Cartagena* (to avoid the strong Winds in the *Offing*) under the Shelter of the Land, I have seen, the Breakers on these Ledges; and at Midnight in hauling off N.W. have sounded four Fathom, and in throwing the Lead twice I lost the Soundings; and immediately after coasting towards the West, and having past the Mouths of the said *Large River*, you may see *Morro Hermocos*, which is a single Hill of a dark Appearance, and upon the Top of it is a Road that appears red: On this Coast, which is all low Land, is a little Bay, called *Samba*: The Shore is cover'd with Trees, and within the Land extends a great Mountain, towards S. W. called *El Alto de Samba*; when you are a-breast of *Samba*, you'll find the Soundings twenty-five Fathoms; which you are not to diminish, for fear of meeting with the Shoals of the Island of *Arenas*, that are not to be seen, unless you are close to the said Island, which lies at the furthest End of the W. Side of the Bay of *Samba*; but if you keep in twenty or twenty-five Fathom you are safe; and

E

here

here if Night overtakes you, the best way will be to anchor, lest you fall to Leeward of *Cartagena* (without knowing it) especially if the *Trade Winds* blow, for the Current sets towards N.W.

El Bugio del Gatto.

When you sail along Shore, and arrive off the Islands of *Arenas*, the Coast will appear to be an even Land, extended from N.W. to S. E. in the Middle of which is a bare Mountain full of hollow, broken white Places of a circular Form, called *El Bugio del Gatto*: When you lie N. and S. with the white Cavities of the said *Bugio* there are some stony Ledges that run out a League and an half off to the Sea; which have no more than a Fathom and a half of Water upon them, and near them are five Fathoms on the Off-side; on the Land Side, there is a Gravelly Ledge of two Fathom; which is only to be seen when the Bottom is clear, therefore you must take Care, for a great many Vessels have struck upon it: This Land of *Bugio del Gatto* terminates upon the *Punta de la Canoa*, which separates into three or four Hills upon the said *Punta* that look like Islands, in Form of small Vessels called *Canos* turned upside down; and hence the said Point took its Name: If you are off this Coast of *Bugio del Gatto*, when Night comes

Punta de la Canoa.

comes on, with *Land Winds*, you must run into fifteen or twenty Fathom to anchor, because the Current sets towards the East, with those Winds. In the Day-time you may keep in twenty Fathom, and if you lose suddenly the Soundings, sail on 'till you are N.W. and S. E. with the said *Bugio del Gatto*; and from hence stand in for the Land till you meet with Soundings, from seven to eight Fathom, but then come no nearer the Shore, for in six Fathom off the Point of *Canoa*, there are three Rocks, called *El Negrillo*, which are under Water; but the Sea is seen to break upon them, tho' there is six Fathom Water close to them: N. and S. with the Bay of *Cangrejera*, there is a Channel between them and *Punta de la Canoa* which has seven Fathom Water, but keeping in eight Fathom Water, you'll sail clear of all Danger; and without them, 'till you are up with *Punta Canoa*, and then you'll bring open the Bay of *la Cangrejera*, and are past the said *Negrillo*, which lie in form of a Triangle, about a Cable's Length distant from each other; when you bring open the Bay of *Cangrejera*, you'll also bring open the City of *Cartagena*, and then you may luff up to the Southward, and anchor at the *Playa Grande*, or *Great Shore*, which is the Coast *Playa Grand.* off *Cartagena*: But if you sail along the

Coast, and have no Soundings, take care to look out for the Hill of *Nuestra Senora de la Popa*, which lies above *Cartagena*: It is a remarkable Hill, (for there is none like it,) resembling a Gally overturned, with her Head to the N E. and her Stern to the S.W. It commands or overlooks all this Land; as soon as you are in sight of it, stand in towards it, and you'll come upon the aforefaid *Playa Grande*: If this Hill appears towards the South or S.W. you'll be on the East Side of *Cartagena*; but if it should appear between the South and S. E. you'll be on the West Side of *Cartagena*, in which case you must take particular Care how you sail in for *Cartagena* on account of the Shoal of *Sal Medina*, which lies four Leagues from that Port, and a League and a half from the Shore of *Tierra Bonda*, and N. and S. with the Castle of *Boca Chica*, on the little Mouth; it is a Shoal of Stones, and shallow on the Out-side: Upon it was lost an Advice Boat from *Spain* in 1688; and the *Almirante* of the Galleons of the Marquis de *Brenes*, coming from *Porto Belo* to *Cartagena*, entered *Boca-Chica*, passing on the N.W. Side of the said Shoal of *Sal Medina* within sight of it at Noon-Day, and after he thought himself clear of the Shoal, found the Vessel touch the Ground twice, but did not lose

lose her Way for she went over free, and got in safe: By this Fact it is known, that the said Shoal runs out shallow towards the N.W. When you are off the *Playa Grande*, if you wou'd anchor on it, you may do it in what Water you please, for it is all clear Ground: At the End of this *Playa*, and of all the City of *Cartagena*, on the West Side, there was an Entrance called *Boca Grande*, or the *Great Mouth*; it was very large formerly, and the Galleons used to enter that Way, but for a great many Years past, it has been shut up, or obstructed, in such a manner, that all the Place is one continued Shore, and does not seem to have had any such Inlet or Mouth before it; only within the Harbour there is a little Cove with broken low Ground, that shews where this Entrance was. From thence, towards the West, the Land becomes more solid, and is called *Tierra Bonda*, that runs as far as *Boca Chica*, three Leagues distant from the said *Boca Grande*; and this *Boca Chica* is, now-a-days, the Entrance of the Port of *Cartagena*, which I shall explain in the Description of the Bay of *Cartagena*.

Boca Grande of Cartagena and Boca Chica.

If you are in the Latitude of ten Degrees, and looking out for the Port of *Cartagena*, discover no Land, you are then to the Leeward of it; because *Boca Chica*, the Entrance

Signs of the Leeward Coasts of Cartagena to Port Bello.

A DESCRIPTION of the

of *Cartagena*, lies in the Latitude of ten Degrees; and from thence to the Windward is high Land, but to the Leeward it is lower Land: The *Punta* of *San Blas* lies in the Latitude of nine Degrees fifteen Minutes; and from thence to *Porto Bello*, the Coast runs almost E. and W. Between *Cartagena* and the *Punta de San Blas*, lies the Bay or Gulf of *Darien*, in the Middle of which is the large River of *Dariel*, in the Latitude of eight Degrees thirty Minutes: In this Gulf many have been at a Loss, not knowing what to do for want of knowing the Directions and Marks of the Coasts; at the Mouth of the River or Gulf of *Dariel*, is the *Punta de Caribana* to the Windward, and *Cape Tiburon* to the Leeward: From *Punta de Caribana*, as far as *Cartagena*, the Coast lies N. E. and S. W. and from *Cape Tiburon* to *Punta de San Blas*, the Course of the Coast is N. W. and S. E. (between them is the Bay of *Playon*) and from *Punta de San Blas* to *Porto Bello*, the Coast runs E. and W. as was said before. In your Passage to *Cartagena*, if you find yourself to the Southward of ten Degrees of Latitude, and in standing to the S. E. should discover Land a-head, or to the Windward, and none to the Leeward, you are off the Coast that lies N. E. and S. W.

The N. E. and
S. W. Coasts
from *Cartagena*
to the Ri-
ver *Dariel*.

near

near the River of *Dariel*; but if you discover Land to Leeward, that runs to the S. E. you are upon the *Playon*, which is the Coast of *San Blas*: When you are on the Coast of N. E. and S. W. you are to the Leeward of *Cartagena*, and in Sight of *Boca Chica*, and of the Islands of *Baru*, which are not high; and you will see the Hill of *La Popa*, and the Castle of *Boca Chica*: From the Hill of *La Popa*, the said High Land extends, or runs, towards the East, with three or four Breaks, which are called *Buena Vista*, or *Good Sight*, and the Main Land which is seen over the Islands of *Baru*, is moderately high: Near to the Sea, and to the Islands of *Baru*, lie the Islands of *San Bernardo*, which are of the same Magnitude as those of *Baru*; and within those of *San Bernardo* is a great Bay, called the Bay of *Telu*: N. and S. with this Bay lie some high Mountains, which run N. E. and S. W. and are called *El Alta de Verana*: Between all these Islands and the Main, you may anchor with any Vessel, for it is all a clean Passage, and shelter'd from the *Trade Winds*, only you must keep a Hand on the Fore-Yard, to warn you from any Danger that he sees; without the said Islands of *Baru*, but near them, you may

A DESCRIPTION of the

anchor in good Bottom with white Sand; and between them and the Coast you may go to *Cartagena*, in a Channel of five Fathom with white Sand, which is to be seen at the Bottom, and smooth Water; in this Manner you may sail to *Puerto de Naos*, and from thence to *Cartagena*. To the Leeward of the Island of *San Bernardo*, lies *Isla Fuerto*, which is plain and even; to the Southward of this Island you may anchor in six and eight Fathom, and may take in Water there: Between this Island and the Coast is a Channel of twenty-five and thirty Fathom; The Point on the N. E. Side of this Island is foul Ground without; and from the Island of *San Bernardo* you'll see that the Land of the Coast is plain and marshy, only it has a few Hillocks in some Parts, and runs so to the Mountain *del Aquila*, or the *Eagle*, which lies S. W. of *Isla Fuerto*; these Mountains are not very high Lands, but are only called so because they rise higher than the Coast to the Windward; and at the End of it towards the S. W. are two Breaks declining to the *Punta de Caribana*. At the S. W. Side of the *Isla Fuerto* lies *la Tortoquilla*, which is a low Island, and you may anchor under its Shelter. To the
S. W.

S.W. of the *Tortoquilla*, and by the Mountains *del Aquila*, there are three other little Islands, near the Coast; and on all this Coast of *Isla Fuerto*, as far as the *Punta de Caribana*, you may anchor in twenty and twenty-five Fathom; and a soft owzey Bottom, only off the *Punta de Caribana*, it is full of Stone Ridges and Shallows; this Point or *Punta* is low Land. If you come this Way, in case of need, you may send a Boat ashore, any where between the Mountains *del Aquila* and *Cartagena*; for here you'll find Towns of civilized *Indians*, which go to *Tolu*, and to the River of *Sinu*, to pay their Tithes with Cattle. From the Cape *Tiburon* runs towards N.W. a Bay called *El Playon*; all over which there are many Islands and Shoals; they all lie N.W. and S.E. with the said Cape *Tiburon* and *Punta de San Blas*: The most Part of these Islands are surrounded with Shoals, sunken Rocks, &c. but all have small Channels between them, which require a Man of Skill and Experience to enter and navigate thro' them; the Privateers and Pirates are wont to take shelter and careen in the Ports of this Bay, for the Islands, that are without, secure them from all Winds, and here they can take in Water.

But

A DESCRIPTION of the

But to return to our Marks to know the Coast, you must observe, that from Cape *Tiburón* towards the N.W. there runs a continued Ridge of Hills, with five or six Beaks, near the Sea Coast, which are called *Tiende Ropa*; from thence, along all the Bay of *Playon*, are some high Mountains, as far as *Cabeza de Catuca*, which is a great Hill; and from hence toward the N.W. run the Hills of *St. Blas* or *Sierras Lloronas* (or *Crying Hills*) which terminate upon *Punta de St. Blas*, and make a Break in the Figure of a Saddle; so that from *Dariel* to Leeward all is high Land, and higher on all the Bay of *Playon*; whereas it is lower on the Coast of N.E. and S.W. to wit, from *Dariel* to *Cartagena*: Now when you are upon the Coast of E. and W. which is that between *Punta de St. Blas* and *Porto Bello*, you'll see the *Crying Hills*, or the Part that looks like a Saddle; from which to the Westward, run some even Hills, called *Punta de Cruz*; along the Sea Coast the Land is low, near the River of *Escribanos*, or of *Francisco*.

To go from
Cartagena to
Porto Bello in
Time of the
Trade Winds.

In coming out of *Cartagena*, at *Boca Chica*, to go to *Porto Bello*, in Time of *Trade Winds*, you must direct your Course towards

towards the W. N. W. between *Sal Medina* and the Islands of *Baru*; and when you are abreast of *Thesoro*, which is the outermost Island of *Baru*, steer Westward, 'till you reach the *Punta* of *St. Blas*, or the *Cabeca de Cativa*; and from thence direct your Course S. W. 'till you come in sight of the said *Punta*; but if you judge you are upon it, and the Night overtakes you, without seeing it, your best way will be to brace to, with your Head off to Sea. lest you should run upon the said *Punta de St. Blas*, which is not clear; and Eastward of it lies the Island *del Agua*; but, having lain by 'till Break of Day, direct your Course to the S. W. to make the Land of the Coast that lies E. and W. for by the Marks and Signs above-mentioned, you'll know where you are; and when you are past the Point of *St. Blas*, you must keep out, (yet in sight of the Coast) which is better than to come too near the Land; because the *Trade Winds* make a great Sea upon this first Part of the Coast of E. W. and from the River *del Escribanos* the Coast is shallow as far as *Nombre de Dios*. Coasting along in this manner, as soon as you see the Land higher towards the W. S. W. you must keep
into

A DESCRIPTION of the

into the Shore, to fall in with *Nombre de Dios*, and to the Westward you'll see the little Islands of *Bastimentos*; Southward of which lies the Bay of *Nombre de Dios*, where the Galleons used to come in formerly; it is about six Leagues from *Porto Bello*. When you are upon these little Islands, you may either go without them, or keep the Land a-board, and sail within them; in either Case you'll see the Land a-head, near which lies a little high Island, called *Drake's Island*; between this and the Main, there is a Channel of four Fathom, and to the North-west of *Drake's Island* lies the Shoal of *Sal Medina* off *Porto Bello*, which you'll know immediately by the Breakers upon it, and any Galleon may pass between the said Shoal and *Drake's Island*, or without it; for, on either Side there is Water enough, and when you reach the Port, your Course is S. E. into the Harbour, where you anchor before *Porto Bello*.

In another Description I shall explain this Entrance of *Porto Bello* with that of *El Nombre de Dios*.

To go from
Cartagena to
Porto Bello in
Time of Land
Winds.

If you sail from *Cartagena* to *Porto Bello* in Time of the *Land Winds*, you must first direct your Course to W. N. W. 'till you

are

are in the Latitude of eleven or twelve Degrees, to get into the *Trade Winds* which Course will carry you clear of the Island of *St. Andres*; for altho' you may anchor near it, and take in Water, yet, if there is no necessity, 'tis better to avoid it, because there are some stony Ridges, on the South Side, at some Distance from the Island; and towards the West of it are the *Cayos de la Magdalena*; but in twelve Degrees of Latitude you are intirely safe, and got beyond the said Island of *St. Andres*. From this Latitude, which you must not exceed, steer S. W. to get sight of the *Excudo de Veraguas*, or the Hill of *Suerre*, which is a very high Hill, as round as a Sugar-Loaf, and lies on that Part of *Costa Rica*, which runs N. N. W. and S. S. E. It is best to fall in with this Land in eleven Degrees of Latitude; for, altho' you sail in with the *Trade Winds*, yet, when you are in Sight of the Coast, you'll not be long without *Land Winds*, which are the Winds we desire to meet with upon this Shoar in sailing to *Porto Bello*. The Reason for making this Coast, rather than that of *Porto Bello*, in time of *Land Winds*, is, that the Currents in this Season set towards the East, and the

S.

*Island of St.
Andres.*

S. W. Winds blow off the Land, at the same time that the *Trade Winds* blow without, in such a manner, that the *Land Winds* do not reach far to Sea, nor the *Trade Winds* come very near the Land.

In looking out for *Porto Bello*, if you find your self upon the *Bastimentos*, and meet with the *Land Winds*, you'll not be able to reach the Port; for the Current will set you to the East, on which Account you must keep out, that you may have the *Trade Winds*, with which you can sail towards the W. to make the said *Costa Rica*; from whence, with the *Land Winds*, you may sail Eastward, coasting in Sight of the Shore as far as *Porto Bello*, taking special Care of not going too far to the Eastward of it; for, if that should happen, it would oblige you to put out again to Sea, to seek for the *Trade Winds*. Being therefore in Sight of the *Pan de Suerre*, (which, as we said before, is a Hill as high as the *Sierras Nevadas*, or Snow Hills of *Santa Martha*) you must steer to the S. E. and look out for *Excudo de Veraguas*, which is a low Island, 2 Leagues from Land, that lies on the Coast of E. and W. and has a little
Eminence

Eminence or Headland, extending out to the Sea.

You may know that you are upon this Island, when you see within Land, towards the S. some middling Hills, running E. and W. called the Hills of *Veraguas* or *del Almirante*; because they lie on the Bay *del Almirante*, which some likewise call *las Bocas del Toro*, or the Mouth of the Bull, that lies to the W. of the Island of *El Escudo*. In the said Bay, near its Entrance, are some low Islands, without any Channels between them. The Bay *del Almirante* is large and spacious, where Pirates and Privateers resort and take shelter; it is peopled with *Caribbee Indians*, so that you must not send any Boat to Land, but when you come to this Coast of *Excudo de Veraguas*, if there is Occasion, you may anchor on the East Side of it, which is clean Ground, as likewise upon any Part of this Coast, from *Veraguas* as far as *Porto Bello*; for, all the Coast has good anchoring Ground, and the Bottom sandy: And sailing along Shore towards the E. with the *Land Wind*, you must take care not to keep too far out; for, the Currents set strong to the Eastward, and by leaving the Coast, you may happen to be put beyond the Port,
and

and be obliged to turn back, as I said before; you may know this Coast well, and be sure that you are at *Veraguas*, when it begins to run E. and W. (for, from the Bay *del Almirante*, the Coast runs towards N.W. and N. N. W. as far as *Suerre*, and then to the Lake of *Nicaragua*) and you'll find that from the *Excudo de Veraguas*, some high Mountains or Hills, with a great Break in the Middle, run towards the East, and are called *las Sierras de Cloque*, which lie towards the East of the River *Cloque*. Having passed these Mountains, when you are to the Eastward of them, the Land runs even, and moderately high, with some small Hillocks; over which, at a little Distance, there appears, on the East Side, a sharp high Hill, in the Form of a Sugar-Loaf, called *Miguel de la Borda*; from it, they say, one may also see the other Ocean, or *Great South-Sea*; for, in this Place, and between *Porto Bello* and *Panama*, lie the nearest Distances from one Sea to the other. Upon this Coast of *Miguel de la Borda* a low Land runs on toward the East, with Cavities or hollow Places, that look reddish, and reaches as far as the River of *Chagres*, which has a Fortress, and a Town of *Spaniards*, and is

Rio de Chagres.

fit

fit only for middling Vessels. On the South Side of the Hill of *Miguel de la Borda* begin some Mountains, that run W. N. W. as far as *Suerre*, and are called the Hills of *Salamanca*; but sailing along the Coast, it will be found, that toward *Chagres* the Land rises a little higher, as also beyond *Chagres* for about a League towards the E. Then you will meet *Porto de Naos*, and from this Port the Land within begins to rise, and is called the *Sierras de las Minas Viejas*, or the Hills of the *Old Mines*, that run as far as *Porto Bello*; but, near the Sea Shore, the Coast of *Chagres* is lower to *Porto Bello*, along which as you sail, the *Port de Naos* will be seen to the Eastward, about two Leagues from the Island of *Naranjos* or *Orange Island*, near the main Land, is a Channel which is only fit for large Boats. In the Coast between *Chagres* and *Porto Bello*, sometimes a rough Sea arises from the *Trade Winds*; and in Time of the *Land Winds* there are some very dark and dreadful Nights, with much Lightning and some Thunder; but often the Lightning vanishes without Thunder; and tho' the Nights should prove favourable, yet, it will be necessary to go with a great deal of Care between *Chagres* and *Porto Bello*.

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If you should happen to be there in such Nights, anchor about a League from the Shore, in twenty or twenty-five as far as forty Fathoms, and do not come into less Water; because near Land the Sea is rougher than it is without, and the Currents have more Strength; besides that, from fifteen Fathom towards the Land it is foul Ground.

From Porto
Bello to
Cartagena.

Sailing out of *Porto Bello* for *Cartagena*, direct your Course towards the N. W. 'till you arrive off the North Side of the Shoal of *Sal Medina*, and if you have the Wind large, steer E. by N. 'till you are N. and S. with the *Cabeca*, or Head of *Cachiba*; and *Punta de St. Blas*; and from thence continue your Course E. looking out for the Islands of *Baru*; when you have seen these, and are got clear of them, steer E. S. E. to enter *Boca Chica*.

But, if you come from *Porto Bello*, with the *Trade Winds*, you must traverse to Windward from *Porto Bello* to *Punta de San Blas*, governing your self according to the Winds, which in the Day are Northerly, and in the Night N. E. take care not to come too near the Shore, but only keep in Sight of it. At Sun-set you must stand out 'till Break of Day, and then tack and make in again to
the

the Land; for, in this manner, you must coast along Shore, observing what Course you take by Day and Night, 'till you arrive at *Cabeca, Cañiba, Punta de San Blas*, and the Islands *del Aqua*; as soon as you discover to the Southward some high Hills, which are those of *Tiende Ropa*, you'll have got your Passage; and then sailing to the East, you'll go safe; when you arrive at the Islands *del Aqua*, steer E. or E. S. E. as the Winds permit, to make the Coast of N. E. and S. W. or the Hills *del Aquila, Isla Fuerto*, and Islands of *Baru*; for, in any Port you come to upon this Coast, you may anchor, if there be Occasion.

When you have made *Isla Fuerto*, steer N. E. or N. E. by N. for, by this Course you'll get into the Westerly Winds Way that blow in the Day-time, and then you may sail N. W. for, in the Night-time here are very favourable Winds: In this manner you may work to Windward along the Coast, provided you keep two Leagues off; for, then you are safe, and will find a muddy Bottom; from the *Isla Fuerto* you must keep the same Course, 'till you come in with the Islands of *San Ber-*

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nardo; and then steer to the North, to make the Islands of *Baru*; for, near them, on the South Side, there is no Bottom to be found: And thus you must sail N. or N. N. W. 'till you come to the *Isla del Feforo*, which lies to the E. S. E. and from this Island the same Course will bring you to *Boca Chica*; if you cannot reach the Port of *Cartagena* in the Day-time, you may sail to *Porto de Naos*, and anchor there to pass the Night; it is a little Bay that lies two Leagues to the Leeward of *Boca Chica*, and may be known by a small Hill on the Shore, much like the Hill *de la Popa*, called *Perico*, and is as round as a Sugar-Loaf, one Point of which runs out to the Sea: Near this Point you'll enter *Porto de Naos*, and anchor in fifteen or sixteen Fathom of good Ground.

To go from
Cartagena to
Havannah.

In sailing out of *Boca Chica* from *Cartagena* for the *Havannah*, either close haul'd, or with a large Wind, you may go between *Sal Medina* and *Terra Bomba*, 'till you are N. and S. with the City of *Cartagena*, and as far as the *Punta de Canoa*: If you should be oblig'd to anchor in passing between *Terra Bomba* and *Sal Medina*, for want of Wind, before you have got to the Eastward
of

of *Boca Grande*, which is on the *Playa Granda*, or *Great Shore*; you must not cast anchor there, because the Water is too deep, and the Ground bad; but rather incline to the Shoal or *Sal Medina*, for thereabout you'll find a Bottom of Mud, with twenty or twenty-five Fathom Water. If you are a-breast off *Cartagena*, and free from *Sal Medina*, on the East Side, stand out to Sea, steering North, or more to the Windward, if the Weather permits; so that you are sure your Ship makes a N. N. W. Course, you may sail without Fear; for, you'll pass between the *New Shoal* and the *English Shoal*, and also between the said *New Shoal* and the *Vibora* or *Viper*, without sounding on either, and observe, that, upon quitting the *Playa Granda*, or *Great Shore*, you take in your Top-sails, for fear of meeting with many hard Gusts, that often happen near the Coast, for the first and second Night, till you are out at Sea, and clear of these Squalls of Wind, by which many Ships have been damaged.

Having steer'd your Course Northward, when you find your Ship in the Latitude of fifteen Degrees, and thirty Minutes, take

care of the *English Shoal*, which lies in that Latitude; for, if you sail but one Point to Leeward of N. N. W. you'll be upon it, and if you make your Course N. by W. you'll pass by the East Side of the said *English Shoal*, and fall in with the Middle of the Shoal of *Vibora*, or the *Viper*, which lies in the Latitude of sixteen Degrees fifty Minutes.

Keep therefore the said Course, 'till you arrive in the Latitude of sixteen Degrees and forty Minutes, and if you have passed to the Eastward of the *English Shoal*, and do not find Soundings, you will be upon the Middle of the *Viper*, which is so steep too on the South Side, that half a League from it you may plainly see its Breakers, and find no Soundings; and if it should happen that you are in this Situation towards Night, without discovering the said Breakers throw her Head off to the Southward, and lie by 'till Day; and then steer to the N. W. to gain Sight of the said *Viper*, or to meet with Soundings on the West Side of them; for, West of this Shoal of the *Viper* you'll find Soundings in the Latitude of sixteen Degrees and forty Minutes, where there is a sort of a Bay.

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If you steer North from *Cartagena*, in the Time of *Trade Winds*, you'll go between the *English Shoal* and the *New Shoal*, without seeing either, (tho' sometimes the *New Shoal* has been seen, yet that seldom happens) and when you are got to the Westward of the *Viper*, you'll meet with Soundings, as we said before, and note the said *New Shoal* lies about N. and S. with the West End of the said *Viper*; therefore, when you have here met with Soundings, run to the S. or S. S. W. to get into deep Water; and having lost the Soundings, steer to the N. W. 'till you find the Bottom again, and then stand to the Southward again, into deep Water, 'till you can find no Bottom in your Course to the N. W. for, then you have left the *Viper* on the East Side.

Upon this Bank of the *Viper*, on the North Side of the Shoal, is very good anchoring, and there is no Danger in sailing over it; if you avoid the stony Ridges that may be seen to the Eastward, and there are two or three little sandy Islands, near which the Ground is clean: In this Passage, and off the said Islands the Sloops from *Jamaica* come to fish.

Having pursued this Course into the Latitude of seventeen Degrees, you are entirely clear of Danger; for, altho' you be within the Soundings of the *Viper*, provided you are in seventeen Degrees of Latitude, you'll be on the North Side of the stony Ridges, and in the Middle of the Bank which is clear from thence to the Northward, and then you may steer N. W. if the Winds are favourable; for, the Current sets to the N. and by this Course you cannot fail of seeing either the *Great* or *Little Caimanes*, (which are Islands to the S. of *Cuba*;) If the *Trade Winds* blow fresh, steer N. W. by N. (for with these Winds the Current sets S. W.) and you'll fall in with some of the *Caimanes*; the two small Islands lie in the Latitude of nineteen Degrees, and forty Minutes, and are about a League asunder, between which any Ship may pass: The first and Eastermost is plain, and full of Mangrove Trees; and the Point on the East runs out to the Sea, near it, there is a smooth Passage; the Westermost Point is flat and even. On one Side the Coast lies W.S.W. and E.N.E. The other runs almost E by N. and W. by S. and is flat, even, marshy, and full of little Hills, so that it looks like many
small

small Islands, till you come near it, and then you find it is but one: Both Shoars have many sandy Banks, that look red, and may be coasted without Fear, because they are clean and safe, with deep Water.

The *Grande Caiman*, lies in the Latitude of nineteen Degrees twenty Minutes: This Island is low, and from E. to W. is covered with high hummocky Mangroves; it has many Ridges of Rocks that may be seen when you come near it, to run about half a League into the Sea; the first on the West has a great deal of Sand, and here makes a Bay. If you are in the Latitude of twenty Degrees, and have not seen the *Caimanes*, you are got to the North Side of them; and may have gone through them, between the large and the small; or you may have past by the West Side of the *Grande Caiman*, without seeing them; in which Case, direct your Course to the N.W. and you'll come in Sight of Cape *Corrientes*, which is an even Land, moderately high, with some Tufts of Trees; one of which Trees looks like a Watch Tower. When you are off this Cape, to be more sure of it, you'll see to the Northward some high Mountains full of Ridges, which lie on the other Side of the Island of *Cuba*,
upon

upon the River of *Puercos*; and some call them *Las Sierras del Potrero*; others, *Sierras del Rosario*; for in this Situation you can see no other; they appear off at Sea to be two Hills: To this Cape *Corrientes* you are not to come too near, 'till you are N. and S. with it, for to the S.W. about a League and a half from Land, a Rock lies under Water.

But when you have passed thro' between the *Caimanes*, if the first Land you see lie to the N.W. with three Eminencies or Hills, (of which the middle one is larger than the other two) you may be sure it is the Island of *Pinos*, for such an Appearance it makes at Sea; near to it you'll distinguish, that the Hill to the East is sharp pointed; and nearer to them, when you discover the low Land of the said Island, you'll see to the Eastward, a continual Ridge of Shoals, which lie off the Eastermost Point of the said Island *de Pinos*: These Shoals are called the *Jardines*, and run East and West; when you sail along this Island of *Pinos*, you'll see at the Westermost Point of it four or five stony Ridges, between which and the Island you may anchor, in case of Necessity, for it is good anchoring Ground, and shelter'd from the Winds; and steering from henceto the
West

West or N.W. you'll come in Sight of Cape *Corrientes*, as aforesaid.

The Ships that trade to *Trinidad* in *Cuba*, La Trinidad de Cuba. when they come from *Cartagena*, take the aforesaid Course; and as soon as they meet with the *Vibora*, or *Viper*, they cross over it, entering it's small Channels, between the stony Ridges, endeavouring to make the *Punta del Negrillo* of *Jamaica*; from thence having seen it they steer to the North, by which Course they commonly make the small *Caimanes*, and continue that Course, 'till they make the *Cayos de Cavillones*, and the *Jardin de la Reina*, or *Queen's Garden*; sailing thence into twenty-one Degrees of Latitude, they keep a good Look-out; for if they see Land they are upon the *Cayos de Cavillones*, which lie E. and W. and immediately after run N. W. and S. E. Those of the *Jardin de la Reina* they leave at a Distance, because the said *Cayos de la Reina*, run along 'till they terminate near the River of *Trinidad*, and if they come not in Sight of the said *Cayos*, they always sail to the Northward 'till they make some high Hills, for on the West are the two Hills of *Gavilan*, higher than those on the East, which are the Hills of *Santo Espirito*; when they are to the Northward they stand

stand in for them, and pass between the *Jardin de la Reina*, and those near the Island of *Pinos*, which lie in twenty-one Degrees and thirty Minutes; in this Manner, sailing 'till they see the Hills of *Gavilan*, and are off the River of *Trinidad*, which is only fit for Vessels that draw about fifteen *Palmos*, or ten Foot Water, and lies at the West End of the said Hills, near the End of the *Jardin de la Reina*. From the River of *Trinidad*, to the East, run the Hills and the Bay of *Santo Espirito*, and the *Mansanillo*, which ends at Cape *Cruz*; and without the Coast, the *Cayos del Jardin de la Reina*, and those of the *Cavilones*, run 'till near Cape *Cruz*: To sail into *Santo Espirito*, and the *Mansanillo*, requires an experienced Pilot, as well as a Vessel of a small Draught of Water, because there are many Shoals in this Bay of *Mansanillo*. All this Sea between the *Jardines de Isla de Pinos*, and the *Jardin de la Reina*, and *de la Trinidad*, as far as the Bay of *Xagua*, is a Gulph, and therefore you must sail with the utmost Care.

*Another Course
from Cartage-
na to the
Bayannah.*

In your Course from *Cartagena*, when you leave *Playa Grande*, or *Punta Canoa*, if the Wind shou'd hang Easterly, so that you
can't

can't lie nearer than N. by W. or N. N. W. you must observe that when you arrive in the Latitude of 13 Degrees and 30 Minutes, if the Night comes on, so that you cannot see the Shoal of *Roncador*, you must lay your Head off to the S. E. and lie by 'till Morning; if you then discover no Land, pursue your former Course of N. N. W. in the Day, and brace to, with your Head to the S. E. every Night, 'till you gain the Latitude of seventeen Degrees; for then if you have not found any Shoals, you'll have pass'd between the *New Shoal*, and the *Serranilla* in fifteen Degrees and thirty Minutes; if you judge that your Ship has latch'd to Leeward, or to the N. W. take care to found; for you may fall on the Shoal *de la Serranilla*, which if you find Soundings upon, stand off to the Southward till you lose them, traversing thus till you lose the Soundings to the N. W. and by that Means you'll go clear to the Leeward or East of the *Serranilla*: But if you judge you are on the West Side of the *Serranilla*; and observe that in standing off towards the N. N. W. the Soundings do not decrease, then you are upon the Banks of the *Cape Gracias de Dios*; for from them to that of the *Serranilla* there is but a small Distance)

Distance) and that Course will carry you clear of it: But if you should lessen the Soundings, in steering N.N.W. you are then coming upon the *Serranilla*, which you are to avoid as aforesaid, and being clear of it, (either by passing on the West Side, or on the East) steer your Course N.W. by N. and you'll get Sight of Cape *Corrientes*; or else of *San Anton*, or the Island *de Pinos*; if you have passed to the Eastward.

To sail from
Cape Tiburon
to the Port of
Cuba.

If you are off Cape *Tiburon*, and would sail to the Port of *St. Jago de Cuba*, you must steer N.W. between the said Cape and the Island *Navaza*; to the W. of this Cape, about four or five Leagues, lies a small Bank of eight and ten Fathom Water, which you may sail over without Danger.

But, if you direct your Course N.N.W. you'll fall in with the Bay of *Guantanamo*, where the Land is high; and from Point *Maizi*, which is the East End of the Island of *Cuba*, all the Coast along the South Side is high Land, and even Hills, as far as the *Sierra* or Mountain of *Guantanamo*, or *Santiago*, which lies a League to the West of the Bay of *Guantanamo*; and all this Coast has deep Water, so that you may sail close along the Land: The *Sierra*, or
Mountain

Mountain of *Guantanamo*, may be known by its Form, which is like that of a Saddle, and terminates at the Sea, with a round Top, or high Cliff: A League before you come to this Mountain, lies the Bay of *Guantanamo*, which opens as you sail along the Coast; the Land about it is low, and full of Hillocks: It has its Entry to the N. and is a large Bay, with two Rivers of sweet Water, which the Pirates and Privateers often frequent. After you have passed the said Mountain or Saddle, there is a red high Hill, from which the Land declines, and so runs lower to the West 'till it joins the *Sierras del Cobre*, or *Copper Hills*, which are other high Hills that run as far as the *Sierra de Tarquino*; the first and Eastermost of these has a Break like unto a perfect Half-Moon, and from this to the Saddle, the Land runs lower; at Sea the Coast between these Hills seems to consist of marshy Ground: In the Middle of the low Land, between the said Hills, lies the Port of *St. Jago de Cuba*: Those that sail along the Coast, when they are passed the Saddle, will see some Hills that look like Altars on the Sea Shore, and are therefore so called; at the End of which lies a small Fort, called *Aquadores*; and coasting to the West, you'll

you'll perceive it look white. If you happen to be near this Place, in the Night-time, you must keep out 'till Day-light to enter *St. Jago de Cuba*.

If coming from *Cape Tiburon*, you would go to *Cape Cruz*, and you are between the said Cape and the *Navaza*, steer N. W. and by this Course you'll pass safe to the Northward of the Shoal of *las Ormigas*, or *Ants*, which is a Shoal not visible, but the Water upon it seems to be boiling; then look out for the *Copper Hills*, that run from the Leeward of *St. Jago de Cuba*, to the *Sierras* or Hills of *Tarquino*; which are three very high Hills; the last or Westermost, has a round *Apex* or *Top*, that looks as if it had been burnt; these are the highest Hills on all the Coast, which lie E. and W. from *Cape Mayze*, or *Punta de Maizi* as far as *Cape Cruz*.

Upon the Coast, below these Hills, are three or four Rivers fit for large Boats; and from the Hills of *Tarquino* to the Westward the Land declines, for the Distance of about a League; and runs even 'till it terminates in a narrow plain Point, called *Cape Cruz*, near which the Ground is foul, and as you sail along to the Westward, you may perceive it's Bank run about two Leagues off, from the Mast-Head.

To

To sail from Cape Cruz to the *Caimanes*, ^{Cape Cruz.} steer W. b. S. 'till you run into Sight of the small *Caimanes*; and having coasted along the South Side of them, steer N.W. to pass by the North Side of the great one; from thence sail into the Soundings of Cape *Catoche*; and if you are bound to *New Spain*, or ^{From Cape Cruz to New Spain, or to the Havannah.} to the *Havannah*; you must sail into Sight of Cape *Corrientes*. Observe that in all this Sea of the *Caimanes*, the Currents are variable; and particularly when the Winds are moderate, they run to the N. and N.E. and set upon the *Jardines*, in such a manner, that sailing along the North Side of the *Caimanes*, to make the Cape *Corrientes*, or the Island of *Pinos*, some Persons have found themselves upon the *Jardines*; and have been wreck'd or lost; others have been driven into Sight of the Hills of *Gavilan*; which lie upon the Bay of *Xagua*, mistaking it for the Island of *Pinos*, when they were really on the North Side of the *Jardines*; and in this Case, you must free yourself by steering to the East, with the *Land Winds*, and endeavour to make the Shoals call'd the *Queen's Gardens*; from thence sail to the Southward, and look out for the Gardens of the Island of *Pinos*, which, if you get Sight

of, you may anchor on the East Side of them, in six and eight Fathom Water: If your Vessel is not large you may sail to the Southward, between the *Cayos*, or Shoals; for there is a Channel, in which you must keep a Boat a-head to direct you. In these *Cayos* there are some that have good Water; when you are on the South Side of them you must sail to the West, to get Sight of the Island of *Pinos*; and from thence off Cape *Corrientes*; you must not keep too great a Distance from the *Jardines*, for some, by keeping at too great a Distance, instead of making Cape *Corrientes*, have been carried by the Currents in Sight of *Cosumel*, or the Island of *Mugeres*; and found themselves in Danger; for after passing the Island of *Pinos*, the Current commonly sets to the S. W. and after that to the N. W. between the Capes of *San Anton* and *Catoche*: When you are bound for *New Spain*, or *Havannah*, it is better to get Sight of Cape *Corrientes*, or *San Anton*, than to fall in with Cape *Catoche*.



C H A P. V.

*Contains a Description of the Coast
of Florida, the Channels, and the
Island of Cuba.*

WHEN you are up with Cape Corrientes, and certain of it by the Grove of Trees, as aforesaid; if you would go near it, you may sail safely towards it, when it bears N. and S. for then you'll be clear of its Shoals; and when you are round it, there is a Bay to the Eastward which affords very good Shelter; where you may clean Ship, or heave down, in case of Necessity; and if you wou'd go in here, you must turn close aboard the Cape, for tho' you should see some Shoal Patches, or white Water, yet there is no Danger; as you will quickly get past it, keeping well up to Windward, 'till you come within the Bay; where you'll see a sandy Shore, upon which you may anchor in five or six Fathom Water, or more if you please, for it is all good anchoring Ground, and clear; tho' you see the Bottom with black Spots, it is only

Tufts of Sea Weed, that lie in Heaps at the Bottom, and the rest is white Sand with Cockle-Shells; at the Brink of the Shore is a good Place to take in Water; and at the End of it, a Grove of Date Trees. After you have passed some Ridges of Stones, inclining to the Sea, you'll find the said Place for Water. From Cape *Corrientes* the Coast runs to the W. N. W. as far as the Cape *de San Anton*, which is the West End of the Island of *Cuba*, and is like a Mole built on the Land, that runs out from the Front of the said Island; on the South Side of it, the Coast is clear and soundable, the Land low and full of Trees; of which some appear higher than others; at Sea the Trees are to be seen before you discover the Land, and they look like Ships under sail, which Appearance has deceived many Persons.

This Cape of *San Anton*, has about three Leagues in Front, from which three Points run out, that form two little Bays; each of them is a Place to take in Water; but the best is on the Northermost Point, called *Punta del Manglar*; that on the South is called *Punta del Guanál*; and they all lie N. and S. Near the *Punta del Manglar*, a little to the East of it, begins the Bank that runs to the
N.

N.E. by the Shoals of *St. Isabel*, and along the Coast as far as the Bay of *Honda*: If you would take in Water upon this Cape, you may anchor upon the said Bank, for in this Part of the *Punta del Manglar*, there is a Spring or Well of good Water; near it there is likewise a Lake of good Water, and just by it, is a Pit called *de la Sorda*. To the Eastward of this Bank, lies the Bay of *Guaniguanico*, which affords good Shelter within, for Vessels of a moderate Draught; but without the said Bay there are four and five Fathom Water, and some Shelter from the North, between the *Cayos*; but a Man must be experienced that attempts to pass between them, to come out near *Babia Honda*. In sailing without the Shoals of *St. Isabel*, when you come upon the Shoal off Cape *St. Anton*, endeavour to pass in Sight of it, steering North; for to the N.W. of the said Cape, about five or six Leagues distant, lies a Shoal, called *Don Sancho Pardo*; but that Course will carry you clear of it, but you must luff up to Windward; and if you have a large Wind, you must sail N.E. passing by the *Cayos*, and Shoals of *St. Isabel*, at some Distance from them, (for they commonly are under Water, and their Breakers are never

to be seen;) but when you are upon them, or have struck Ground, you must not attempt to ply to Windward near these Shoals; for here the counter Currents set towards the S. W. and the same happens on that Part of the Coast which runs E. and W. from the *Cavannas*, to the Westward; therefore, it requires a large Wind to go coasting to the *Havannah*; but with the *Trade Winds*, 'tis better to steer your Course N. E. or N. N. E. to gain the Latitude of twenty-five Degrees, and find the Soundings of *Tortugas*, which Soundings you must lose again, by standing off to the Southward; and when lost, and in deep Water, direct your Course to the S. E. in Search of the Port of *Havannah*; taking Care from what Part of the Soundings you begin your traverse; because you may find Ground in twenty-five Degrees of Latitude, or less, and it is a material Thing in this Course, because you may have Soundings to the West of *Tortugas*, where the Bottom is thick Sand and Gravel, with thirty Fathom Water; from whence 'tis good traversing to the S. S. E. and the Current will assist to bring you to the Port of *Havannah*. If you find Soundings in less than twenty-five Degrees, and the Bottom white Sand, with
small

small Pieces of Lime, you are on the West Side of the *Tortugas*, and on the Edge of the Bank; from hence you must sail to the S.S.E. but if the Bottom should be reddish Gravel, with some small Cockle-Shells, you are to the S. W. of the said *Cayos*; from thence you are to steer S. b. E. If the Bottom should be of reddish Stone, mixed with Mud, you are to the S.E. of the said *Cayos de Tortuga*, and from hence sail South: If the *Trade Winds* blow fresh, Care must be taken because the Current runs very strong to the East; for which Reason endeavour to get sooner over to the Coast of *Havannah*, which you'll see in less than thirty Hours, for that Time it takes to run over with a fresh Gale. If you should not discover it within this Time the Current has been very strong, and you'll fall in with *Matanzas*, or *Porto de Hicacos*.

*Traverse of
the said
Soundings to
the Port of
Havannah.*

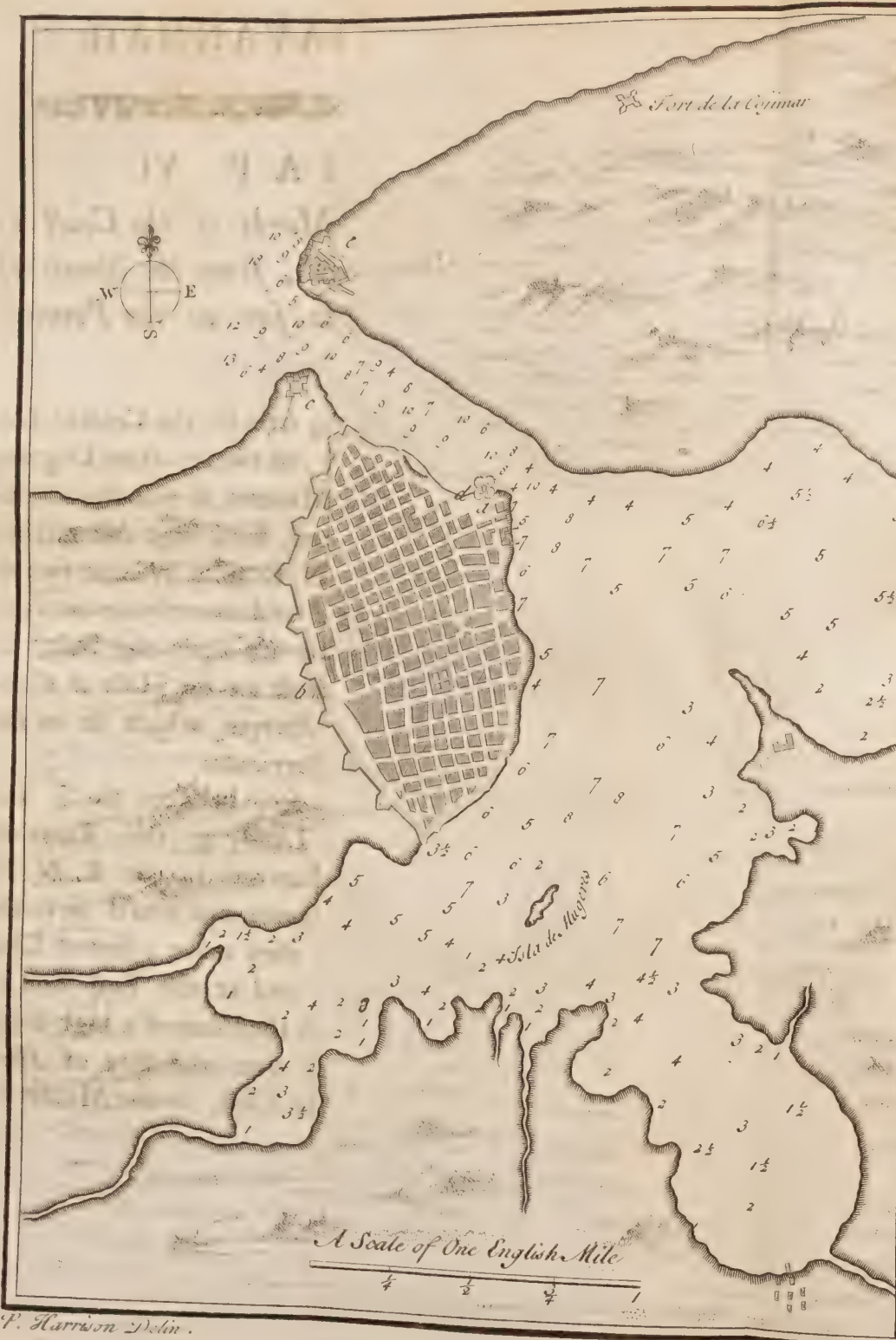
If the *Trade Winds* blow moderate, the Current does not run so strong to Windward; in this case it will take more Time to come in sight of the Coast; wherefore you must always compare the Time with the Currents, and other Circumstances, that may happen to forward or retard your Course; which Things sometimes puzzle the best Pilot.

It is very necessary to get into the Soundings of the *Tortugas*, to make your Passage safe; for, some have confidently run over at a Venture without once Sounding on the said Bank, and have got upon the Shoals of *St. Isabel*, and lost their Ships without ever seeing the Land in hazy Weather; but, if you are sure of the Latitude in which you are, you may guard against this Danger: because, in twenty-three Degrees twenty Minutes, you may see the Coast, from the River of *Puercos*, as far as the Bay of *Matanzas*; and, in this Latitude, if the Land cannot be seen, you are near the Shoals of *St. Isabel*, which, I must observe to you again, are never seen to break but in bad Weather.

*The Shoals of
St. Isabel.*

North and South of the River *de Puercos*, and in the Latitude of twenty-three Degrees and a half, lie the *Mucaras*, which are narrow small Shoals; Care must here be taken how you sail, for fear of striking upon them; but, if you pass in Sight of them, there is no Danger.

A Plan of the Harbour and City of Havana



- ## References
- a. The Parade
 - b. A Gate into the Country
 - c. Castle de la Punta
 - d. The Fort or Governours Palace
 - From a to d is a Line where Brass Guns are mounted
 - e The Morro or Moor. Castle

P. Harrison Delin.



C H A P. VI.

The Signs or Marks of the Coast of the Havannah, from the Shoals of St. Isabel, as far as the Point of Hicacos.

IN sailing over for the Coast of *Havannah*, in twenty-three Degrees, thirty Minutes, if you should discover, within Land, some high Mountains, extending from N. E. to S. W. and two of those Hills round and even, lying between S. and S. W. you are upon the Shoal of *St. Isabel*; for, those are the Hills of *Guaniguanico*, or *El Potrero*, which lie on the S. Side of *Cape Corrientes*.

Signs or Marks of the Lee-ward Coast of Havannah.

Hills of Guaniguanico, or Potrero.

If you should see, between the S. and S. W. a double Land, or two Rows of Hills broken, that run to the E. N. E. Those are the *Organos*, and you'll be to the North of them; they make a sort of Cleft in the Middle; and at the East End of them is an Hill, in the Form of a high Sugar Loaf, which lies over the Bay of *Honda*; and under the Cleft, in the Middle of the

The Organos.

the Hills, is the River *de Puercos*, which is only fit for small Vessels; but the Bay of *Honda* is deep, and the Port large enough for a whole Fleet; near to the Shore, is a proper Place to take in Water: Its Entrance runs in South, and clear without any Obstruction; when you are in, you may anchor where you please, but you'll find the best Ground, near an Island that lies in the Bay: To be more sure of this Port, you'll see in the Up-land, to the South of the aforesaid Sugar Loaf, some Hills of a moderate Height, call'd *Sierras del Rosario*, or *de la Bréa*; for, the *Organos* and the Sugar Loaf lie near the Sea-Coast; if the Day is clear, you'll see all these Hills and the Land distinctly.

Cavannas.

If you are at Sea, off the Coast of *Cavannas*, you'll see, within Land, a round and high Hill with a small Break; it has a little Wood at the Top, and another high Hill, called *Pan de Cavannas*, or the *Loaf of Cavannas*, or of *Guai Jaibon*; and near the Sea-Coast a double Row of little Hills, like unto Shepherds Cottages, from which they take their Name; these run to the East of *Babia Honda*, as far as *Mariel*, and the aforesaid Loaf appears over the Top of the Hills *de Cavannas*, near the midst of

of them, where the River of *Cavannas* lies, and is fit for Vessels of a moderate Burthen.

When you fall in with the said Coast of *Cavannas*, and are N. and S. with the said *Sugar-Loaf*, you'll see to the S. E. the Land marshy, with two Hills in Appearance like two little Islands; and beyond these, to the Eastward, lies the Port of *Havannah*; but, when you come near the marshy Coast, you'll discover, that Part of it, which appear'd to be two Islands, are two Hills upon the Land, whereof the Eastermost is the greatest; they are called *las Mezas*, or *Tables of Mariel*. They are all plain and level at the Top, and the Eastermost makes with a Point like a Proa of a Row-Galley towards the East, and shews from the Point upwards like two Steps of a Stair-Case; about the Middle of the great Table Hill, it shews with two or three white Hollows like unto Ships under Sail, when seen out at Sea. At the Westermost End of the lesser Hill lies *Port de Mariel*, The Port of Mariel. which affords very good Shelter, and sufficient for any Vessel; to enter which, you must make the said West End of the lesser Hill, and then you'll see the Mouth of the Port, into which you must sail, keeping most over to the Lee Shore, 'till you

*The Port of
the Havannah.*

you are within the Entrance, and then luff up and anchor under the Windward Shoar of the *Port de Mariel*, where there is more Shelter from the Sea and Wind; on the same Side there is sweet Water, that runs clear from a Rock: when you arrive off the said two Hills or Tables, at the Eastermost End of the great one, you'll see the Head or *Morro*, or *Mountain* of the *Havannah*; but if you come in from Sea, and fall in with the said Tables, you'll discover in the Up-land, two middling round and even Hills, like a Woman's Breasts, which from their Form, are call'd *las Tetas de Maria*, or the *Paps of Mary*. When these Hills come in Sight to the East Side of the said Tables, and they bear N. and S. with you, then you'll be also N. and S. with the Port of *Havannah*. These two Paps, and the two Tables, are the principal and only Marks for this Port.

Advertisment

If in standing in for the Land, with the *Trade Winds*, you come near the Shoals of *St. Isabel*, or the *Organos*, tack and stand off to Sea, into twenty-four Degrees of Latitude, and from thence make in for the Land; there is no Necessity to keep the Lead, for the nearer you come to this Leeward Coast of the *Havannah*, the shorter will be the Off-shore Tacks, and the sooner you'll

you'll gain the Port; for if you sail too far from the Coast out to Sea, you'll meet with stronger Currents, and when you come in again to the Land, may be to the Windward of the Port, so much, perhaps, as to cause you much Delay and Trouble to gain the said Harbour.

But in Case you fall in to the Windward of the Port of *Havannah*, and should see towards the S.E. a high Mountain within the Land, somewhat round, with a Break in the Middle, that makes it look like two different Hills: These are the Hills of *Camarioca*, which lie to the South of *Punta de Hicacos*; and on the West of these is another Hill, with a round Loaf upon it, called *El Pan de Matanzas*: There are likewise some Hillocks, that lie N. and S. with the Bay of *Matanzas*; to the West of which are some small Mountains, called *Arcos de Cantasi*; when they bear N. and S. with you, you'll find that the *Pan de Matanzas*, lies S.E. with *Cantasi*; towards the West, is a Ridge of small Hills, called *las Sierras de Taruco*, that lie E. and W. when the *Arcos de Cantasi* bear N.W. and S.E. you'll be N. and S. with the Hills of *Taruco*, and when these Hills bear N.W. and S.E. you'll be N. and S. with the Port of the *Havannah*, and likewise N. and S. with the *Tetas*, or *Paps of Maria*.

Signs of the Coast of the Havannah to the Windward.

Hills of Camarioca.

Pan de Matanzas.

Arcos de Cantasi.

Sierras de Taruco, or Hills of Taruco.

In

Cojimar.

In the Middle of the Mountains of *Taruco*, lie some white Cliffs on the Sea Coast, called the Cliffs of *Suyarima*; off which is a Bank that reaches above a League and a half into the Sea, and two Leagues wide, with three and four Fathom Water, fit for middling Vessels, but in a large Ship you must take great care; for on all the rest of this Windward Coast, from the *Matanzas* it is deep Water, and steep to the Shore; if you happen therefore to fall in with it, don't keep too far from the Land, because of the Currents without; run along the West Coast 'till you have passed the Hills of *Taruco* and discovered the small Fort of *Cojimar*; which lies a League to Windward of the Port; from whence you may see the Head or *Morro* of *Havannah*, and arriving off this Fort, endeavour to go clear to Windward of its Point, because a Shoal runs out a little way from it; but as soon as you bring open the Fort, you are quite clear of it, and close to it you may anchor in five or six Fathom Water; from hence you are to sail along the Coast, 'till you arrive off the said *Morro*, and discover the Castle *de la Punta*, and the small Fort *de la Chorrera*; which lies to the Leeward of the Port; and when you are off the
 Castle

Castle *de la Punta*, and have brought the Port open, then spring your Luff, and run into the Harbour of the *Havannah*.

If the Night should come on when you are near the said Port of *Havannah*, and to Leeward of it, stand in towards the *Mezza grande de Mariel*, and then brace too 'till Morning, when you may get to Windward with the Land Breeze, and arrive in a few Hours off the Fort, and turn into it; to enter it the better you should wait till Mid-Day, for then you'll have a brisk Wind to sail in with. If Night overtake you to the Windward of the Port, keep close to *Cojimar*, and brace too with the Ships Head off to Sea 'till Break of Day; if you are either to Windward, or to Leeward of the Harbour, and want a Boat from Land, fire off a Piece and shew a Light, for if they see or hear you from the *Morro*, they will answer you; and at Break of Day, if you are upon *Cojimar*, make little Sail, or lie by 'till Ten o'clock, and when you are up with the *Morro* you may enter the Port. I caution you to keep the Ship's Head off to Sea, in the Night-time, and lie by, because this Coast is full of Eddies and counter Currents, which may run the Vessel a Shore; and if it happen that you drive towards the Coast,
it

To go to Ha-
vannah by the
Old Channel.

Punta de
Mayfi.

it is then easy to run off to Sea: But if you lie with her Head to the Land, it will be a hard matter to ware her; therefore always avoid traversing, as well as laying with your Head towards Land; and on these Considerations it is needful to have regard to the Coast, particularly for those that navigate in great Ships; for tho' on other accounts they are the best Vessels, yet, when they come into little Water, or near the Ground, the greatest Danger attends them. To go to *Havannah* by the *Old Channel*, you must sail in Sight of *Punta de Mayfi*, which is on the East Side of the Island of *Cuba*; the Front whereof lies N.E. and S.W. The S.W. Side seems double, and the Surface of the Land as even as a Table on the Top, from whence it declines towards the N.E. and terminates in a plain Point: All this Front has regular Soundings, and deep home to the Shore; when you are on the North Side of the said *Punta*, you may anchor close to the Coast: Two Leagues more to the West of this *Punta*, there is a small Port, called *Matan*, where you may also anchor; running West along the Coast you'll see a Shore which is called *Playa de Miel* or the *Shore of Honey*, that lies five Leagues from *Punta de Mayfi*: Near
to

to this Shore you may safely anchor, in eight Fathom; and here the Ships cast anchor which come in to take a Pilot at *Baracoa*; the Mouth of which lies about a League S. W. of the Honey Shore; It is a good Port with deep Water; the Course into it is S.W. tho' many avoid entering it because it is troublesome to come out again, for the Wind blows right in, and 'tis so very deep Water, you can't well warp out; it has a little Island in the Middle, and a Shoal near the Land to the Eastward.

When you are off the *Punta de Mayfi*, *Baracoa*, you may see the East Coast which is double Land, and at the Beginning of it, is the Descent of an Hill that looks like a Smith's Anvil, and is called *el Ayunque de Baracoa*, or the *Anvil of Baracoa*, which lies upon the said Port of *Baracoa*, therefore steering your Course towards it, you sail directly for the Port of *Baracoa*; and when you see it to the S.E. stand in to the Land, to discover the Honey Shore, where you may cast anchor to get a Pilot, or provide yourself with Necessaries at *Baracoa*.



C H A P. VII.

*Containing Observations of the CUR-
RENTS, and the VARIATION of
the COMPASS.*

*Of the Nature
and Properties
of Currents.*



THE *Currents* are every where the greatest Obstruction a Pilot meets with ; because they are only to be known by Experience and Observation : The common Opinion is, that they are caused and governed by the Wind, especially in the Seas of *North-America*, which abounds with a Multitude of Islands and Shoals, that lie along its Coasts. And altho' without the Windward Islands, and on the rest of the Coast of *North-America*, there are Currents also, yet these abate their Force, and are lost when they come into the open Seas ; neither have they, with high Winds, such Strength, as within the Islands, where we find Currents continually, and their Force answerable to that of the Winds, as Experience has shewn ; for, when the Winds blow high, the Current is strong ;
and

and, on the contrary, weak in calm and serene Weather; whereas, without the Harbours, Bays, and Channels, if the Current set a Mile an Hour with a brisk Gale; it will not set more than half a Mile in a Calm; and from these Observations, the Curious may judge of the Strength of the Currents, by the Difference of the Winds.

By the *Variation*, we mean the Declination of the Magnetic Needle from the true Meridian. If the two Extrems point due North and South, there is no Variation; but, if the North Point of the Needle incline to the East Side of the true North, then, we say, the Variation is Easterly: In like manner, if it incline to the West of the true North, we say, the Variation is Westerly. This premised, I shall set down what Variation the Needle has this present Year 1718. in the several Places hereafter mentioned. But, as Opinions concerning the *Cause* hereof are various, and that we are certain the Variation itself changes and alters, it would be proper for every Person to observe the Needle's Variation all along during the Course of his Voyage.

Of the Variation of the Magnetic Needle.

Note, The Easterly Variation at present decreases every where in the West-Indies, and the Westerly increases.

N.B. " The Imperfection of the present Instruments for observing the Variation,

H 2

induced

“ induced Capt. *Middleton*, and the *Editor*,
 “ to contrive a *New Azimuth Compass* for
 “ that Purpose ; which was tried at Sea, and
 “ approved, both on account of its Ease
 “ and Accuracy : It has been since impro-
 “ ved by Capt. *Jos. Harrison*, and requires
 “ but one Person to manage in the Time
 “ of Observation ; It is likewise useful in
 “ finding the Altitude of the Sun or a Star
 “ without an Horizon ; a further Account
 “ thereof may be seen in a little *Traet*, in-
 “ titled, *The Description, Use and Excel-*
 “ *lency, of Mr. SMITH's New Sea-Qua-*
drant, &c. printed at the End of this *Treatise*.

*The first Description contains Part of the
 Bay of Mexico, and its Shoals, with the
 Coast of New Spain, New Andaluzia,
 and New Biscay.*

*Concerning the
 Currents in
 the first De-
 scription.*

Within the Harbours, Bays, Streights,
 and Channels of these Parts, as we said
 before, the *Currents* are stronger and weak-
 er, as the Winds happen to be ; for, the
 Currents abate when there is little Wind,
 as we find by Experience in the Streights,
 or Channels, of *Bahama*, during calm Wea-
 ther ; and, agreeable to this Observation, in
 the Bay of *Mexico* likewise the Currents
 follow

follow the Force and Direction of the Winds, and the Ranging of the Coasts; that is to say, by the Easterly, or *Trade Winds*, the Currents set N. W. but by the Northerly, and *Land Winds*, they set S. E. and near the Shoars, they run along them, according to the Winds that blow there; which likewise occasion frequent Eddies or counter Currents, especially on those Coasts that lie nearly East and West.

In this first Description of the Bay of *Mexico*, the *Variation* is Easterly; that is to say, in that Part of it, among the Shoals of *Campechy*, it is $3^{\circ} 20'$; and when you are out of Soundings $4^{\circ} 30'$; in the middle of this Bay $5^{\circ} \frac{1}{2}$ to 6° ; and on the Coast of *La Vera Cruz* it amounts to 7° .

Concerning the Variation of the Compass in the first Description.

The second Description contains another Part of the Bay of Mexico, and its Shoals; with the Coast of Yucatan, New Biscay, and Grand Florida.

In this Description the very same happens as in the former; the Currents taking their Course among the Shoals, as the Channels run, causing counter Currents also near the Shoars, according to the Force and Direction of the Winds which blow there.

Concerning the Currents of the second Description.

Concerning the
Variation of
the Compass in
the second De-
scription.

In this Description, within Soundings near *Cape de Catoche* the Variation is five Degrees and a half Easterly; and from this Place to the *Negrillo*, it diminishes to three Degrees and a half.

The third Description contains the Coast of Yucatan, Guatemala, Honduras, Nicaragua, and Costa Rica.

Concerning the
Currents in the
third Description.

The Course that the Currents take in this Description is as follows; with the Easterly or *Trade Winds* the Current sets, in *Costa Rica* and *Nicaragua*, to the North along the Coast, as far as *Cape Gracios a Dios*; and among the Shoals of the said Coasts there are Eddies or counter Currents; but when you come to the said Cape it runs to the West, into the Gulph of *Honduras*; from thence it turns it's Course, and runs to to the N. and N.E. according to the ranging of the Coast; and within Sight of *Cape de Catoche* it sets to the N.E.

With the *Land Winds* the Current runs, on *Costa Rica*, towards the East; and on *Costa Nicaragua*, towards N.E. and among the Shoals according to the Situation and Position of the Entrance into them. With
the

the *Northerly Winds* there is no Current on these Coasts; (except that between their Islands and Shoals a small Current sets towards the South,) for their Course with the N.E. and N.W. Winds tending generally towards N.W. and N.E. the *North Winds* oppose and stop their Motion.

The Variation is every where five Degrees Easterly in the Places mentioned in this Description.

Concerning the Variation of the Compass in the third Description.

The fourth Description contains the Windward Passage, with it's Shoals, the Island of Jamaica, Part of the Island of Cuba, the Coasts of Cartagena, Terra Firma, Costa Rica and Nicaragua.

The Currents in this Description run as follows; with the Easterly or *Trade Winds*, they run to the West along all the Coast of *Cartagena* and *Terra Firma*, but in their Course we find some Alterations, occasioned by counter Currents; and without, at some Distance from the said Coasts, they run towards the N.W. On the Coasts of *Jamaica* and *Cuba*, they run along Shoar towards the West; and between *Jamaica*, *Hispaniola*, and *Cuba*, they run to the N. and N.E. in-

Concerning the Currents in the fourth Description.

to the Entrance between *Cuba*, and *Hispaniola*, and the Islands to the North of them.

With the *Land Winds*, the Currents set Eastwards, on the Coast of *Terra Firma*, and *Cartagena*, with many counter Currents in the Bay of *Playon*; and without, at a Distance from the said Coasts, they set towards the N. E. and among the Shoals, they run according to the Situation of the Entrance into them; where these Winds commonly cause many Alterations in the Currents.

With the *Northerly Winds*, (which make a smooth Sea) the Currents set Southerly, in the Windward Passage.

Concerning the Variation in the fourth Description.

The Variation is Easterly in this Description, that is to say, between the Coasts of *Cuba*, *Jamaica* and the *Caimanes*, four, five and six Degrees; and rises and falls within the said Limits, as far as *Cape de Catoche*. On the Coast of *Terra Firma* it is three Degrees, but on the Coast of *Cartagena* we found no sensible Variation of the Needle.

The fifth Description contains the Coasts of *Florida*, the Channels, and the Islands of *Cuba*.

The

The Currents set in this Description in the following manner; between *Jamaica* and *Cuba*, they run towards the West; and at *Cape de Cruz*, towards N.W. but on the *Caimanes*, towards the N. and N.E. to fall in with the small Channels of the *Jardines*; and by the Isle of *Pines* they set to the S.W. 'till they come to *Cape de Corrientes*; for from thence to the W.N.W. and N.W. and by the Coast of *Apalachy*, they return to the E. and E.S.E. and S.E. at the Edge of the Soundings, near *Tortugas*; and from thence run towards the East, to fall into the Channels of *Bahama*, according to their Situation. The strongest Currents of the Waters are in the Gulph of *Florida*, where they run to the North 'till they come out at the Cape of *Canaveral*, and from thence they set towards the N.E. losing much of their Force and Strength near *Bermudas*. By the North Side of *Cuba* the Current sets from *Cape Mayfi*, towards the N.W. and thro' the old Streights of *Bahama*, to the W.N.W. with a small Stream; but coming to the Point of *Hicacos*, it runs to the N. and N.E. to fall in with the other Channels, and from the Port of *Cavannas* it runs towards the E. and E.N.E. sometimes violently into the said Channels,

*Concerning the
Currents in
the fifth De-
scription.*

Channels; but from *Cavannas* towards the West Part of the Coast the Current alters its Course and runs to the S. W. to fall in with the little Channels of *St. Isabel* or *Coloradoes*.

With the *North Winds* and *Land Winds* the Current sets in the aforesaid Gulph, and along the Coasts of *Havannah*, and *Florida*, in the same manner as with the *Trade Winds*.

Of the Variation of the Compass in the fifth Description.

The Variation is Easterly from the Cape of *Corrientes* and *St. Antony* in *Cuba*, to *Cape Catoche* in *Yucatan*, from 3 to 5 Degrees and a half; and on *Cape Florida*, and *Cabeca de las Martires* three Degrees; and through all the *Bahama Channel* to *St. Augustin* in *Florida* three, four and five Degrees.

The sixth Description contains the Islands of the Coast of *Caraccas*, the Coast of *Venezuela*, *Laguna de Maracaibo*, and *St. Martha*, and some Part of the Islands of *Hispaniola* and *Porto Rico*.

Of the Currents in the sixth Description.

The Current sets with the *Trade Winds*, in the Seas of this Description, to the W. and W.N.W. but near Shoar there are counter Currents, though most on the Coasts of *Caraccas*.

With

With the *Land Winds*, they commonly run strong, and more especially on the Coast of *St. Martha*, but at the Time of the *North Winds*, the Currents are weak, for the said Winds do not reach these Coasts, where there is commonly fair Weather.

The Variation is Easterly, upon the afore-
said Coasts in the following manner: On
those of *Venezuela*, which reach from the
Cape de *Codera* to the Cape de *St. Roman*,
from two to four Degrees and a half; and
through all the Coast of *St. Martha* from
the Cape de *Veja* five, six, and seven De-
grees.

*Of the Vari-
ation of the
Compass in the
sixth Descrip-
tion.*

*The seventh Description contains the rest of the
Islands of the Channel, the Eastermost Parts
of Cuba, the Island Hispaniola, that of
Porto Rico, and the Virgins.*

In this Description the Currents take their
Course in the following manner: In the
Channel between Cape *St. Nicholas* in the
Island *Hispaniola*, and Cape *Mayfi* in the Island
of *Cuba*, they set towards the North; and
those that run by Cape *Mayfi*, set from thence
towards the N.W. and W.N.W. and those
that fall in with the South Coast of the said
Cape,

*Of the Cur-
rents in the
seventh De-
scription.*

Cape, run along it towards the West by the Coast of *Cuba*; and those that take their Course by Cape *St. Nicholas*, on the Land-side, run towards the East to fall in between the Coasts and the Island *Tortuga*; from whence they take their Course towards the North and N.W. to fall into the Channels which are made by the Islands and Shoals situated towards the North of the aforesaid Islands of *Cuba* and *Hispaniola*, as it does between *Mayaguana* and *Caicos*, and the rest of the Islands and Shoals of *Jumento*, *Triangulo*, *Miracombas*, *Juma*, *Samana*, &c.

In the Bay of *Piliguao*, the Current runs in Eddies with a slow Motion: Along the North and South Coasts of *Hispaniola*, the Current sets with the *Trade Wind* towards the West, and on the North Coast it inclines towards the N.W. to fall in with the Shoals.

On the Eastermost Part of the said Island, they run in counter Currents, and so go through their Bays, particularly in the Bay of *Samana*; on the *Virgines* and *Porto Rico*, the Current sets to the West, with the *Trade Winds*; and along *Pasaie* runs through towards the N.W. and in the Westermost Part of the said Island of *Porto Rico*, the
Currents

Currents are changeable, inclining more, as they run to the said Bay of *Samana*, towards W.N.W.

The Variation is Easterly from the *Virgines* to *La Aquada* of *Porto Rico*, from four to six Degrees, and at *Cabo Roxo* one Degree and a half. In Sight of *Cape de Samana* the Needle inclines to the N.W. one Degree and a half; and in Sight of *Cape Frances* of the Island *Hispaniola*, the Needle inclines again towards the N.E. four Degrees; and on all the Northerly Coast of that Side to that of *Cuba* from four to five Degrees.

Of the Variation of the Compass in the seventh Description.

The eighth Description contains the Coasts of Carolina, Virginia, and the Mouth of the Channel to Bermudas.

In this Description the Current, as soon as it comes out of the Gulph of *Florida*, between *Cape Canaveral* and the Channel of *Bahama*, divides into two Parts; one Part sets away E.N.E. and E, 'till within a little of *Bermudas*; from whence it returns back towards the South, with the *Trade Winds*, 'till it insensibly loses its Strength. The other Part takes its Course along the Coast of *Carolina* towards the N.N.E. and E.N.E. according

Of the Currents in the eighth Description.

according as the Coast ranges from Point to Point, as far as *Cape Roman*, where it again divides, Part of it taking it's Course along the Coast of *Virginia*, and the rest towards the E. and S.E. which at a small Distance loses it's former Strength. These Currents are subject to great Alterations by the variable Winds, which blow here, and occasion many unaccountable counter Currents.

Of the Variation of the Needle in the eighth Description.

The Variation in this Description is Easterly in the *Bahama Channel*, *Cape de Canaveral*, and *Florida*, three, four and five Degrees; and on all the Coast of *Carolina* to the Cape of *St. Roman* five and six Degrees, Westerly; and on the Coast of *Virginia*, and the Ocean to the N. of *Bermudas* from seven to ten Degrees, Westerly.

The ninth Description contains the Windward Islands, from that of Porto Rico, to that of La Trinidad, and Margarita, with the Coasts of Guayana, and Paria.

Of the Currents in the ninth Description.

In this Description the Waters run in the following manner; in the Ocean, between the *Canary*, and *Cape Verde* Islands, and the
Windward

Windward Islands, we seldom meet with any Currents, except where the *Trade Winds* blow, for there generally we find Currents one hundred and one hundred and fifty Leagues to the East of the said *Windward* Islands, which set towards the W.N.W. and coming to those of *St. Bartolome* and *St. Martin*, upon the North Side they follow the same Course of W.N.W. when distant from the Coast, but when near *Porto Rico*, and the *Virgines* they run to the West along the Shore.

Without the Islands *de la Trinidad*, the Currents run towards the N.W. and here their Force increases by the Waters coming from the great Rivers of the Coasts of *Cayana*, and *Guayana*; and arriving to the Eastward of the said Islands, run into their Channels, but on the West of the said Islands they reassume their Course of W.N.W. and of N.W. to fall in with *Pasaje* and the *Virgines*; and between *la Trinidad* and the Coast they run along the Shore with Violence, occasioned by the great River of *Oreonoko*, though they are appeased by the Tides, which run through to *Labocade los Dragos*, and from thence towards N.W. and
W.

W.N.W. to the small Channels *de los Testigos y Frailes*, and the Island *Margarita*, where, and on the Coast of *Paria* they run regularly; but here 'tis necessary to keep a good *Look-out*, as the Seamen term it.

Of the Variation of the Needle in the ninth Description.

In this Description the Variation is Easterly, viz. In the Ocean, from two hundred Leagues to the West of the *Canaries*, to two hundred Leagues to the East of the *Windward* Islands, there is no sensible Variation of the Needle; and within two hundred Leagues to the East of the *Windward* Islands, it begins to vary towards the East, from thence to the said Islands, one, two and three Degrees; and from the Island of *Trinidad*, to *la Margarita*, and as far as *Cape de Cordera*, scarcely one Degree.

The tenth Description contains the Caribbee Islands, with the Coast of La Guayana, and la Cayana, as far as the Equinoc-tial.

Of the Currents in the tenth Description.

In almost all this Description the Currents set towards the N.W. W.N.W. and W. according as the Coasts range; and the nearer it is to the Shoar the stronger they run, on account

Account of the Waters issuing from the Rivers, which are many and great.

The Variation of the Needle in these Seas is very small, the greatest Inclination to the N.E. being two Degrees near the Shore, and but one Degree at some Distance from it; but we find a greater Variation on all the Coast of *Brazil*.

Of the Variation of the Compass in the tenth Description.




I

A P.



APPENDIX.

A TABLE made in the manner of an ALPHABETT, for the easier findinge of the Streates, and chiefest Places portraited in the Drafte of Portabell, beinge in the West-Indies, standing in tenne Degrees, which was taken by Captaine William Parker, of Plymouth, Gentleman, the seaventh Daye of Februarie 1601, being there Admyrall; Robert Rawlin, Vice Admyrall, Edward Gyles, and Philipp Warde, Gentlemen, Captaines by Land; with Captaine Fugars, Captaine Lorimer, and Captaine Ashley, and dyvers others Gentlemen and Souldiors, Marryners, and Saylors, to the number of 150, which were landed, whereof 20 were hurt with the Bullett, and one slain in wynnyng of a Piece of Ordnance from the Enemye.

A.  HE Bastimentoes, (about six Leagues from Porto Bello) between which and the Mayne I went with my two Pynnaces and two Shallops being very dangerous, by Reason of
of

of many Sholes beinge there and it beinge Night.

B. An Island, called *Cagathoe*.

C. The Place where my Shippes roade, beinge the Rock where Sir *Francis Drake* his Coffin was throwne over boarde.

D. The Eastermost Forte, called Saint *Philippes Forte*, wherein were thirtie five Pieces of brasse Ordinaunce, besides fifty Souldiers which keepe the Forte continually, hauing a Howse of Lodging near unto it.

E. The Place where I anchored with my Pynnaces, hauing my Shalloppes halde upp close by there Sydes, when the Forte hayled me, and commaunded me to anchor, which I did.

F. A House built upon a Friggot and a small Bay goinge in fast by it.

G. The Westermost Forte, called Saint *Dia-goes Fort*, hauing thirtie Souldiors in itt, and five Pieces of Ordinaunce, the which they caryed over to the great Fort sauinge one brasse Piece, which they were bringe towards the Towne to playe upon my Men as they past to and fro to our Boats, against whom I sent Captaine *Gyles*

who won the same from them but with the Losse of one Man.

H. One other Fort or Ploatforme, wherein were no Ordinaunce.

I. A Towne, called the *Triana*, where I landed with my two Shalloppes hauing with me no more but 28 or 30 Men, with whom I marched from thence to the great Towne, the which *Triana* I caused to be burnt.

K. A Fort which they are now a buildinge upon a Hill, hauinge close by it a Ryver which cometh downe from the Mountaynes, and runneth foorth into the mayne Ryver, which Fort will both commaunde the Towne and the Ryver.

L. The Key where the two Pynnaces landed the rest of my Men, att the greate Towne, an hower after my landing.

M. A great Storehouse, with Dwellings in itt, which Storehouse was full of greate Tymber for the buildinge of Shippes.

N. The Place where two Frigottes road, the one of them hauinge in hir three Pieces of Ordinaunce, the which I likewise tooke and brought from thence with me, with the which Ordinaunce we beat upon the
Enemye

Enemye marchinge to us from the Wester Fort.

O. The Kinges Howse, wherein were two Pieces of Brasse mounted upon two Fielde Carriages and two hundred and fifty Souldiors belonginge to the Howse and the Towne, besides a Companye of Townsmen which do usuallie keepe their Court of Guarde in the Kinges Howse, which Howse when the Kinges Gallies come thither is full of Treasure, and at no Tyme ells, in which Howse at our first cominge to Towne, our Leiuetenaunte, *Samuel Barnett*, was shotte on the Syde of his Head and through his Eare, and Captaine *Gyles* coming to seconde him was likewise shott over the Breaste and throughe his Arme.

P. The Market Place, or Courte of Guarde.

Q. Certaine verie fair Howsen, wherein dwelt the Sarjeant Major, with other chiefe Commaunders, at which Place we kept our Court of Guarde.

R. A Rowe of Howsen, wherein dwelt dyuers Merchants.

S. The Brydge, with a great Ryver runninge under it, which cometh from the Mountaynes and runneth foorth into the Ryver.

T. The Alkayes House, or Prison, who fled the Town, hauinge a verye fayre Chayne of Gold about his Neck.

U. The Churche, called *Saint Maryes* Churche.

X. The Streat where *Petro Malendus* gathered 60 Souldiors together, and was comminge towards the Brydge for to encounter with me, I hauinge then not above 8 or 9 Men with me for to withstand them, but God did prosper our Proceedings mightelie, for the first two Shott which went from us shot *Malendus* through his Targett, and went throughe both his Armes, and the other Shott hurted the Corporall of the Fielde, whereupon they all retired to their House which they made good untill it was almost daie; against whom I sent Captayne *Ward*, with some Souldiors, who entered the House killing diuers of them, and wounded *Malendus* in eight Places more, himself being shot through both his Thighes in entring, and some of his Men hurt. My self, with others, went to the Kinges House, wherein were many of the King's Souldiors, who would not come to any Composition, but stoutlie defended the same against
Captaine

Captaine *Gyles* and our Leiuetenaunte, who in the Ende slewe dyuers of them, and hurt many others, taking the Kinges Scriuana Prisoner, which Scriuana, beinge a Man of good accompte, I sett at Libertie with the rest after my Departure from *Porta Bell*. This Fighte endured for the Space of fower or five Howres.

Y. The Way that leadeth to *Pennemau*, being full of all Sorts of Artificers, at the End whereof we made a Barracathoe, where Captayne *Gyles* stood with another Court of Guard beinge dyvers and sundrie Times assaulted by the Enemie.

Z. The House where *Petro Malendus* dwelt beinge chiefe Captaine of the Towne.

A.A. A Streat full of all Sorts of Artificers, with two other Streates or Ways leading to the Westermost Fortes.

B.B. Another Church, and a Streat beinge full of all Sorts of Artificers.

C.C. Certayne out Housen wherein ther Neagors dwelt, the which I caused to be burnt, and att the Beginning of the Night I embarked my Men and sett saile to departe, but in going out I was shot in att the Elbowe, and out at the Wreft with a Musket-shot which came from the Wester

Shoare, whereof there was many shott over us, besides 28 great Shott from the Easter Forte which did indaunger us often, but God so wrought for us that we safely gott forth againe contrarie to the Expectation of our Enemyes, who made an Accompte to sinck us in going forth.

D.D. The Place where I stay'd after my Departure from *Portabell*, with both the Frigottes, my two Pynnaces and Shalloppes, untill my Viceadmyrall brought my Shippes thither; where I sett the Scriuana with the rest ashore; and the next Daye beinge the ninthe of *Februarie*, I sett sayle and stood off to Sea.

F I N I S.



*A Plan of the
Harbour and Town
of Porto Bello*



P. Harrison Delin.

A Scale of two English Miles.

I N D E X

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97	97
98	98
99	99
100	100



I N D E X.

A

Advertisement concerning the
Port of La Vera Cruz in
foggy Weather — pag. 24
 — *in clear Weather* — 27
 — *concerning the Port of*
Havannah — 108
Alkaye of Portabell fled — 135
Almeria, Plains of, — 35
Almirante of the Galleons struck,
where — 68
Alvarado, River of — 40
Apalachy inhabited by Spaniards
 — 63
Augustin, St. in Florida — ib.
Advice Ship, from Spain, lost 68

B.

Bank el atto de Simon — 40
 — *el Buey* — ib.
 — *la Cuchilla* — 32
 — *Diablos de Trias* — ib.
 — *of Sand* — 32 and 37
Bar of Tuspa — 34
Barnet, shot thro' the Side of his
Head — 133
Bay of del Almirante — 79
 — *Ascension* — 58
 — *Cangrejera* — 67
 — *Carlos* — 63
 — *Ganada-Boba* — 66
 — *Guaniguanico* — 101
Guantanamo — 94
 — *Gulph of Darien* — 70
 — *Honda* — 101
 — *Manzanillo* — 92
Bay of Metanzas — 109

Bay of Mexico — pag. 31
 — *Misapa* — 46
 — *La Movila* — 61
 — *near Pan de Misapa* — 44
 — *of Panfacola* — 61
 — *Playon* — 70 and 73
 — *Spirito Santo* — 64
 — *Punta de Anton Lizardo*
 — 100
 — *Samba* — 65
 — *Xagua* — 92 and 97
 — *Tolu* — 71
Bernall — 25
Bilanders of Jamaica Fish, where
 — 87
Boats trade from Alvarado — 38
Boats carry Salt from Campechy
 — 32

Boca Chica the Entrance of Car-
tagena — 63
 — *Grande, the old Entrance* 69
 — *del Toro, or Mouth of the*
Bull — 79
Boquilla — 36
Buena Vista — 71

C

Caimanes — 97
Caleta of La Vera Cruz — 17
Campechy, Log Wood cut — 49
Canal de Juan grande — 39
Cape Lobo — 62
 — *Catoche* — 53 and 98
 — *Tiburón* — 70 and 94
 — *Corrientes* — 89 and 99
 — *Gracias a Dios* 56 and 94
 — *San Anton* — 101
 — *Cape*

I N D E X.

<i>Cape Roxo</i> ————— pag. 32	<i>Coast of Mero Grande</i> — pag. 112
— de Cruz ————— 92	— Nauta ————— 35
<i>Cartagena</i> ————— 68	— Rocala ————— 58
<i>Castle of Bocha Chica</i> — 71	— New Spain, inhabited 31
— Correrá ————— 110	— Playa Grande ——— 67
— St. Juan de Ulva ——— 14	— Tavalco, or S. Peter and
— de la Punta ————— 111	Paul ————— 23
— Movila ————— 61	— Tufpa ————— 34
<i>Cavezas, formerly two Islands, but</i>	— Exeudo de Veraguas 79
<i>sunk by a Storm</i> ————— 39	<i>Conil, Mouths of</i> ——— 49 and 53
<i>Careening Place for Ships</i> — 49	<i>Cojimar, Fort of</i> ————— 110
<i>Casamaloapa, our Lady</i> ——— 40	<i>Cliffs of Suyarima</i> ——— ib.
<i>Cayos del Marquez</i> ————— 61	<i>Courses from the Soundings of</i>
— de la Magdalena ——— 77	<i>Campechy to Vera Cruz in</i>
— Cantoy ————— 52	<i>Winter</i> ————— 15
— Cavellones ————— 91	— ————— <i>in Summer</i> ——— 17
— la Reine ————— ib.	— ————— <i>at any Time</i> ——— 19
— St. Diego ————— 63	— ————— <i>from Cape Cruz to New</i>
— Tortugas ————— 103	Spain ————— 97
<i>Chagres</i> ————— 80	— ————— <i>from Cartagena to Ha-</i>
<i>Chicalango, a Careening Place</i> 49	vannah ————— 84
<i>Channels between the Islands</i>	— ————— <i>from Campechy to Car-</i>
<i>Verde, Anegada and Blan-</i>	tagena ————— 54
<i>quilla</i> ————— 20	— ————— <i>from Campechy to Ha-</i>
<i>Charca, a Place to take in Water</i>	vannah ————— 58
— ————— 32	— ————— <i>to Campechy by the Coast</i>
<i>Choca, or Cottage of Vigiero</i> 47	— ————— 52
<i>Cofre de Perole</i> ————— 136	— ————— <i>from Capes Corrientes</i>
<i>Coast of Almeria</i> ————— 35	<i>and San Anton, to Vera Cruz</i>
— New Andaluzia, not in-	<i>and Campechy</i> ——— 49
<i>habited</i> ————— 30	— ————— <i>from Cartagena to Porto</i>
— Barocoa in Cuba ——— 113	Bello in Time of Trade Winds
— New Biscay, not inha-	— ————— 74
<i>bited</i> ————— 30	— ————— <i>in time of Land Winds</i> 76
— Cavannas ————— 106	— ————— <i>from the Port of Cam-</i>
— Cabo Roxo ————— 33	pechy in Winter ——— 18
— Cartagena ————— 67	— ————— <i>in Summer</i> ——— 19
— Costa brava de Sabru-	— ————— <i>from Porto Bello to Car-</i>
cales ————— 45	tagena ————— 81
— Chacalaca ————— 37	— ————— <i>without the Shoals of</i>
— Chagres ————— 81	<i>Campechy to Vera Cruz</i> — 19
— Playa de Miel ——— 112	— ————— <i>from Vera Cruz to Cam-</i>
— Costa Rica ————— 78	pechy at all Times ——— 21
— Grand Florida ——— 61	— ————— <i>from Vera Cruz to Ha-</i>
— Guanaqualcos ——— 21	vannah in North-Winds — 23
— Honduras ————— 57	<i>Cupila</i> ————— 48
— Misapa ————— 29	— ————— Cut-

I N D E X.

Currents, an Obstruction to Mariners ————— page 114
 ——— alter their Direction and Force with the Winds ——— 116
 ——— in the Bay of Mexico, the Coasts of New Spain, New Andalusia, and New Biscay ibid.
 ——— in another Part of the Bay of Mexico, and its Shoals; the Coast of Yucatan, New Biscay, and Grand Florida 117
 ——— on the Coast of Yucatan, Guatimala, Honduras, Nicarragua, and Costa Rica 118
 ——— in the Windward Passage, and its Shoals; the Island of Jamaica, Part of the Island of Cuba, the Coast of Cartagena, Terra Firma, Costa Rica, and Nicarragua — 119
 ——— on the Coasts of Florida, the Channels and Islands of Cuba ————— 120
 ——— on the Coasts of Carracas, Venezuela, Laguna de Maracaibo, St. Martha, and some Part of Hispaniola and Porto Rico ————— 122
 ——— on the Easterly Parts of Cuba, Hispaniola, Porto Rico and the Virgins ————— 123
 ——— on the Coasts of Carolina, Virginia, and the Mouth of the Channel to Bermudas 125
 ——— from Porto Rico to la Trinidad and Margarita, with the Coasts of Guayana and Paria ————— 126
 ——— on the Caribbee Islands, with the Coasts of la Guayana and la Cayana, as far as the Equinoctial ————— 128

D.

Drake's Coffin thrown over-board 131
 Desconicida Lat. 21° 41 and 55
 Dock for building Ships ——— 47
 Date Trees ————— 100
 Danger on the Windward Coast of Havannah ————— 111

E.

English Pirate, his Discovery 53

F.

French Settlements in the Bay of St. Bernardo ————— 30
 ——— Ships shelter'd, where 39
 Fish called Pargos and Zargos 43
 Fort of Aquadores in Cuba — 95
 ——— St. Philip ————— 131
 ——— St. Diago ————— ibid.
 Fortrefs of St. Mary de Galve 62
 ——— on the River Chagres 80
 La Frazia ————— 56

G.

Gallega ————— 17
 Galleon called Santiago, lost 58
 Galleons, the Way they used formerly to enter into the Harbour of Cartagena ————— 69
 Governour at the Town of Tavasco ————— 48
 Gracias a Dios, Cape of ——— 94
 Gulph of Darien ————— 70
 Grove of Date Trees ————— 100
 Guazaqualcos, Coast of, lies East and West ————— 21
 Gyles, Capt. shot thro' his Arm ————— 133
 ——— took the Scrivana Prisoner at Porto Bello ————— 134

H.

I N D E X.

H.		Indians, <i>some antient Buildings of</i>	
<i>Hills of Baracoa in Cuba, p. 113</i>		<i>theirs</i> —————	pag. 58
— Bernal el Chico ———	37	— Carribbee ———	72
— Cabecha de Catuca ———	74	Indian Towns ———	32
— del Almerante ———	79	<i>Island of Alacran</i> ———	59
— del Aquila ———	72	— Arenas ———	65
— de la Bréa ———	106	— Arcas ———	21
— S. Blas, <i>or</i> Sierras Lloronas	75	— del Aqua ———	75 and 83
— Copper; del Cobre ———	95	— El Altajo ———	41
— Chiapa ———	48	— St. Andres ———	77
— de Cloque ———	80	— Baru ———	61
— Gavilan ———	92	— <i>in the Entrance of Bara-</i>	
— Gregorias ———	34	— <i>coa</i> ———	124
— Guaniguanico ———	105	— <i>of San Bernardo</i> ———	71
— Feforo ———	84	— Bastimentos ———	76
— la Popa ———	71	— Blanca ———	38
— Punta de Crux ———	74	— Blanquilla ———	20
— las Tetas de Maria, <i>or</i> Paps		— <i>Isla Blanquilla, near Isle</i>	
— of Mary ———	108	— Lobos ———	33
— Camarioca ———	109	— Cavezas, <i>sunk</i> ———	39
— Miguel de la Borda ———	70	— Cagathoe ———	131
— Morro Hermocos ———	65	— Columel ———	58
— Mariel ———	107	— Caimanes, <i>Great and</i>	
— Pan de Matanzas ———	109	— <i>Small</i> ———	88
— <i>the Old Mines, or Minas</i>		— Drake's ———	76
— Viegas ———	81	— Excudo de Varaguas ———	78
— Nuestra Senora de la Popa		— del Feforo ———	84
—	68	— Fuerto, ———	72 and 83
— Pan de Cayannos ———	107	— los tres Hermannos ———	58
— Organos ———	105	— Locudo ———	79
— el Potrero ———	ibid.	— Lobos ———	33
— de Perico ———	84	— Mugerres ———	52
— <i>the Island Pinos</i> ———	90	— <i>on the River Magdalena</i>	
— Santo Espirito ———	92	—	65
— Suerre ———	77	— <i>of the Mountain del A-</i>	
— Tiende Ropa ———	74	— <i>quila</i> ———	73
— Salamanca ———	81	— Naranjos ———	81
— Tarquino ———	96	— Navaza ———	94
— Taruco ———	109	— Negrillos ———	59
— Veraguas, <i>or</i> del Almirante		— Palaje ———	124
—	79	— Pinos, <i>Lat. 19° 40'</i>	90
		— <i>in the Bay El Playon</i>	73
		— <i>of Punto</i> ———	72
		— <i>Quanaxa, Lat. 16° 40'</i>	
			57
I.		<i>Island</i>	
Iardines ———	97		
Indians <i>civilized</i> ———	73		

I N D E X.

<i>Island of Quita Suenos, Lat. 18°</i>	
30' —————	pag. 58
————— Racatan —————	58
————— near Roca Partida —————	42
————— Sacreficios —————	33
————— the Lake Terminos —————	49
————— Theforo —————	75
————— Triangulos —————	15
————— Tortoquilla —————	72
————— Tortugas —————	60
————— Verde —————	20 and 38
————— Vermeja, or Red Island	59

L.

Lagunilla —————	36
Land off Cape Catoche —————	53
Lake or Laguna de la Ascencion	30
————— of St. Andres —————	43
————— Misapa —————	47
————— Nicaragua —————	70
————— St. Bernardo —————	31
————— Chicalango —————	49
————— Tamiagua —————	34
————— Terminos —————	31 and 49
————— between Tampico and Tuxpa	33
Leeward Coasts of Cartagena to	
Porto Bello, their Signs —————	69
Lime-kilns off Vera Cruz 18 and	38

M.

Malendus, Governour of Portabel, wounded	134
Mangrove Trees	49, 52, 88, 89
Masts for Ships	62
Mineral Waters	47
Mole of La Vera Cruz	21
Mountains of St. Martin	29
delos Allumbres	35
del Aquila, or the Eagle	72
of Arcos de Cantali	109

Mountains los Atriscos, or los	
dos Hermanos —————	pag. 36
————— el alto de Samba —————	65
————— el alto de Verana —————	61
————— Bernal el Chico —————	37
————— las Bochas del Toro	79
————— of Bugio del Gatto —————	66
————— Chiapa —————	48
————— de Cloque —————	80
————— Guantanamo —————	95
————— St. Juan —————	33
————— Havannah —————	108
————— the Old Mines —————	81
————— Pan de Misapa —————	29
————— Nauta —————	35
————— del Papalota —————	36
————— del Potrero, or del	
Rofario —————	90
————— of Tama Olimpa —————	32
————— Villa Rica, Lat. 19°	
40' —————	28 and 37
————— Volcano de Orizaba	27

N.

Negrillos —————	24
Nombre de Dios —————	75
Norths, or North Winds —————	14

O.

Old Vera Cruz —————	16
---------------------	----

P.

Parker, Capt. his Account of	
taking Portabell —————	130
————— shot in at the Elbow —————	134
Palm Trees —————	33
Panama —————	80
Pan de Misapa —————	26
Pan de Cayannas —————	106
Panzacola —————	61
Pan de Suerre —————	78
Pargos, Fish —————	43
Pine Trees for Masts —————	62
Pirates resort, where —————	73, 79, 95
Piraquas, or Guarda Costas —————	49

I N D E X.

<i>Pit, called de la Sorda</i> pag. 101	<i>Ridges off the Island of Pinos, call-</i>
<i>Playa Grande, or Great Shoar</i> 77	<i>ed the Jardines</i> — pag. 90
<i>Point, or Punta de anton Lifardo</i> 38	<i>Rock of Cavezas</i> — 39
— <i>St. Blas, Lat. 9° 15'</i> — 70	— <i>el Morro del St. Martin</i> 43
— <i>Canoa</i> — 66	— <i>el Negrillo, under Water</i> 67
— <i>Caribana</i> — 70	— <i>to the N. E. of Tortugas</i> 60
— <i>Cruz</i> — 74	— <i>del Palo</i> — 39
— <i>Delgada, Lat. 20°</i> — 15	— <i>of Sayulte Peque</i> — 45
— <i>and</i> 36	— <i>of Stone</i> — 39
— <i>Gordo</i> — 16 <i>and</i> 37	— <i>de Sapolitan</i> — 45
— <i>del Guanah</i> — 100	— <i>of Potrero de St. Juan</i> — ib.
— <i>de San Juan</i> — 45	— <i>le Rizo</i> — 39
— <i>of Maizi</i> — 94	— <i>Roca de Farrellon</i> — 45
— <i>del Manglar</i> — 100	— <i>Ravioreadas</i> — 39
— <i>del Negrillo of Jamaica</i> 91	— <i>Roca Partida</i> — 29
— <i>de Piedras</i> — 50 <i>and</i> 54	— <i>of Tortuga</i> — 36
— <i>de Sayultepeque</i> — 45	<i>Row of Hillocks like Shepherds</i>
— <i>de Sapolitan</i> — 44	<i>Cottages</i> — 106
<i>Port of Baracoa</i> — 113	<i>River of Alvarado</i> — 40
— <i>Campechy</i> — 54	— <i>Apalachy</i> — 63
— <i>de Caballos</i> — 58	— <i>St. Anna, or Tonela</i> 48
— <i>of Cartagena</i> — 69	— <i>Baxo</i> — 30
— <i>St. Jago de Cuba</i> — 94	— <i>Cavannas</i> 41 <i>and</i> 107
— <i>Havannah</i> — 61	— <i>Cayuca</i> — 48
— <i>Porto Bello</i> — 76	— <i>Chitepeque</i> — ib.
— <i>of Matan</i> — 112	— <i>de Chagres</i> — 80
— <i>de Naos</i> — 81	— <i>de Cloque</i> — ib.
— <i>de Truxillos</i> — 58	— <i>Daniel, Lat. 8° 30'</i> 70
— <i>of La Vera Cruz, Lat. 19°</i>	— <i>Escribanos</i> — 74
— <i>10'</i> — 17	— <i>Francisco</i> — ib.
— <i>Honda</i> — 106	— <i>Guazaqualcos</i> — 46
— <i>Hicacos</i> — 103	— <i>Ligartos</i> — 56
— <i>Mariel</i> — 107	— <i>Magdalena</i> — 65
	— <i>de en Medio</i> — 37
	— <i>Medelin</i> — ib.
	— <i>Morpata</i> — 30
	— <i>St. Puala, Lat. 19° 30'</i> 16
	— <i>del Potrero</i> — 40
	— <i>Palizada</i> — 62
	— <i>St. Peter & St. Paul</i> 48
	— <i>Puercos</i> — 90

Q

Queen's Gardens — 91

R

Ridges of Rocks call'd Paxaros 20
— *off Point Canoa and el Bu-*
— *gio del Gatto, called el Ne-*
— *grillo* — 66 *and* 67
— *off Cape Corrientes* — 90

River

I N D E X.

<i>River of good Water near Roca</i>	
Partida	pag. 42
Sinu	73
Sisal	53
Santiago, Mineral Water	47
Tampico, inhabited by Fishermen	32
Tabarcas	48
Tamiagua	33
Tavasco	49
Tocoluta	35
Trinidad	92

S

Sampuala	16
Sands Banks	37, 38, 40 and 45
San Juan de Ulva	16
San Augustin de Florida	63
Scrivana of Portabell taken Prisoner	135
Sea boisterous on the Coasts, where	38, 41, 42, and 47
Signs of the Leeward Coasts of Havannah	105
of the Windward Coast of Havannah	109
Ship struck	41
on Bugio del Gatto	66
on the Ridges off Point Canoa	67
Shoals of Alacran	51
Anegada	20
Arcas	18
to the East of Baracoa	124
in the Bay el Playon	73
of Campechy	19
el Coriario	50 and 53
the Jardines	90
St. Isabel	101
the Island of Arenas	65
Manoel Antonio	23
	and 51

Shoal off the Fort Cojimar, pag.

	110
of las Ormigas, or Ants	96
Reventazon	39
Roncador	93
Sal Medina off Cartagena	68
off Porto Bello	76
Don Sancho Pardo	101
Serranilla	95
the English Shoal	85
the New Shoals	55
Sisal	50
the Viper	85
Tampico	34
on the North Side of Tortugas, Lat. 25°	60
Tuspa	34
Soundings off Campechy	59
Tortugas, Lat. 26°	24
the Viper	88

South-Sea	80
Springs of Water	43, 47 and 101
Storms on the Coasts of Chagres	81

T.

Tides	15
Tierra Blanca	35
Bomba	68
Tocoluta	35
Tolu	18
La Tortaquillo	72
Torre de la Merced	17
Tower of St. Anna	48
Spaniards on the River Chagres	80
Tocoluta	35
on the River Alvarado	40
near Acayuca	48
Triana burnt	132
Tavasco	48
Panzacola	61
civilized Indians	32

Toson

4 10.36

I N D E X.

Town, lately peopled by the Spaniards, with a Garrison p. 62
Trade between Havannah and Apalachy ——— 63
 ——— *to Trinidad in Cuba from Cartagena* ——— 91
Trade Winds ——— 14
Triangulas ——— 15
Trinidad in Cuba ——— 91

V.

Variation of the Compass, what 115
 ——— *changes and alters* ib.
 ——— *in the Bay of Mexico, the Coasts of New Spain, New Andalusia, and New Biscay* 117
 ——— *in another Part of the Bay of Mexico, the Coasts of Yucatan, New Biscay, and Grand Florida* ——— 118
 ——— *on the Coast of Yucatan, Guatimala, Honduras, Nicaragua, and Costa Rica* 119
 ——— *in the Windward Passage, the Island of Jamaica, Part of Cuba, the Coast of Cartagena, Terra Firma, Costa Rica, and Nicaragua* 120
 ——— *on the Coasts of Florida, the Channels and Island of Cuba* ——— 122
 ——— *on the Coasts of Caraccas, Venezuela, Laguna de*

Maracaibo, St. Martha, and some Part of Hispaniola and Porto Rico ——— 123
 ——— *on the Easterly Parts of Cuba, Hispaniola, Porto Rico, and the Virgins* ——— 125
 ——— *on the Coasts of Carolina, Virginia, and the Mouth of the Channel to Bermudas* 126
 ——— *from Porto Rico to la Trinidad and Margarita, with the Coasts of la Guayana and Paria* ——— 128
 ——— *on the Carribbee Islands, with the Coasts of la Guayana and la Cayana, as far as the Equinoctial* ——— 129
Vera Cruz, Lat. 19° 10' — 17
 ——— *Old, ditto* ——— 37
Volcano de Orizaba ——— 27
 ——— *or Burning Mountain* 29
 ——— *or Mountain of Orizaba* 29

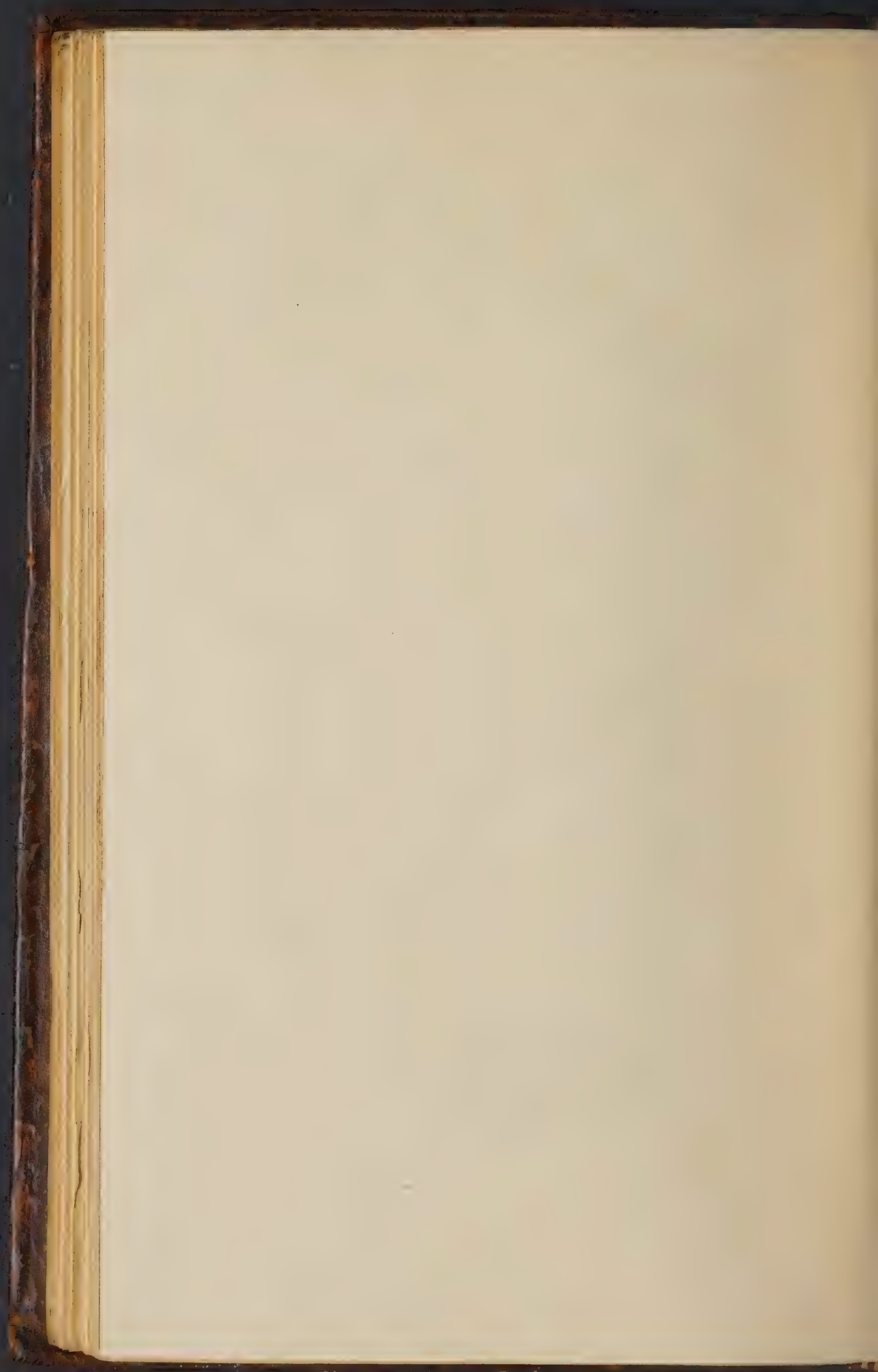
W.

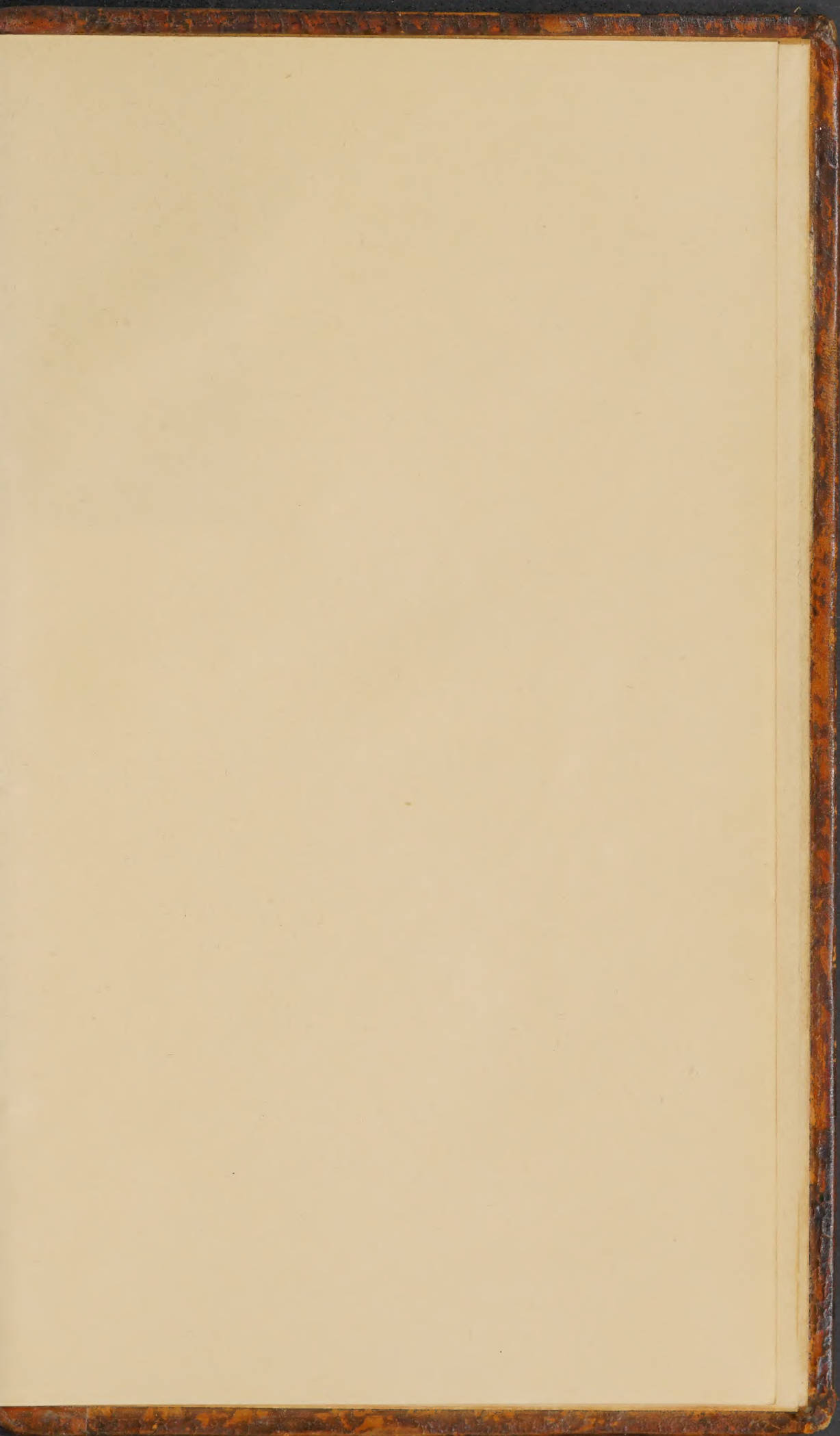
Ward, Capt. shot through both Thighs ——— 134
Watch of the Town of Alvarado 40
 ——— *placed at Chacalaca* — 37
 ——— *Towers* ——— 53
Windward Coast of Vera Cruz 35
 ——— *Havannah* 109
Winds and Weather ——— 14

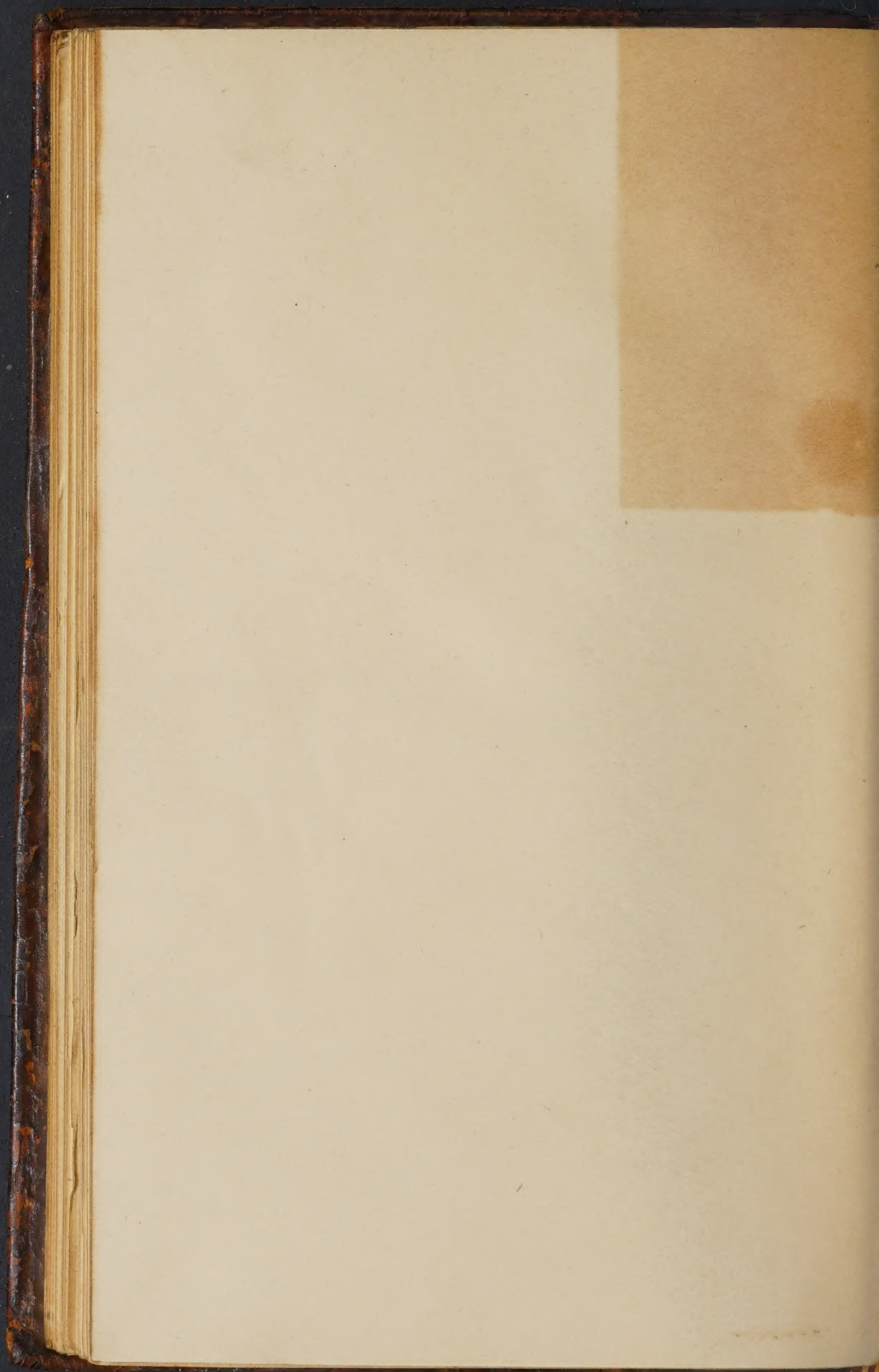
Z.

Zargos, Fish so called ——— 43









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